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FEBRUARY 9 1963

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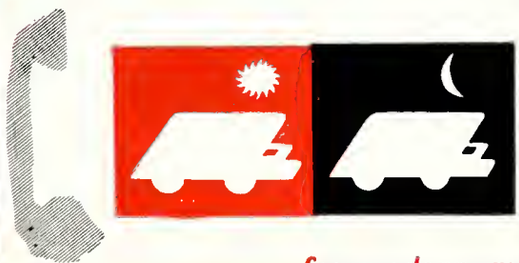
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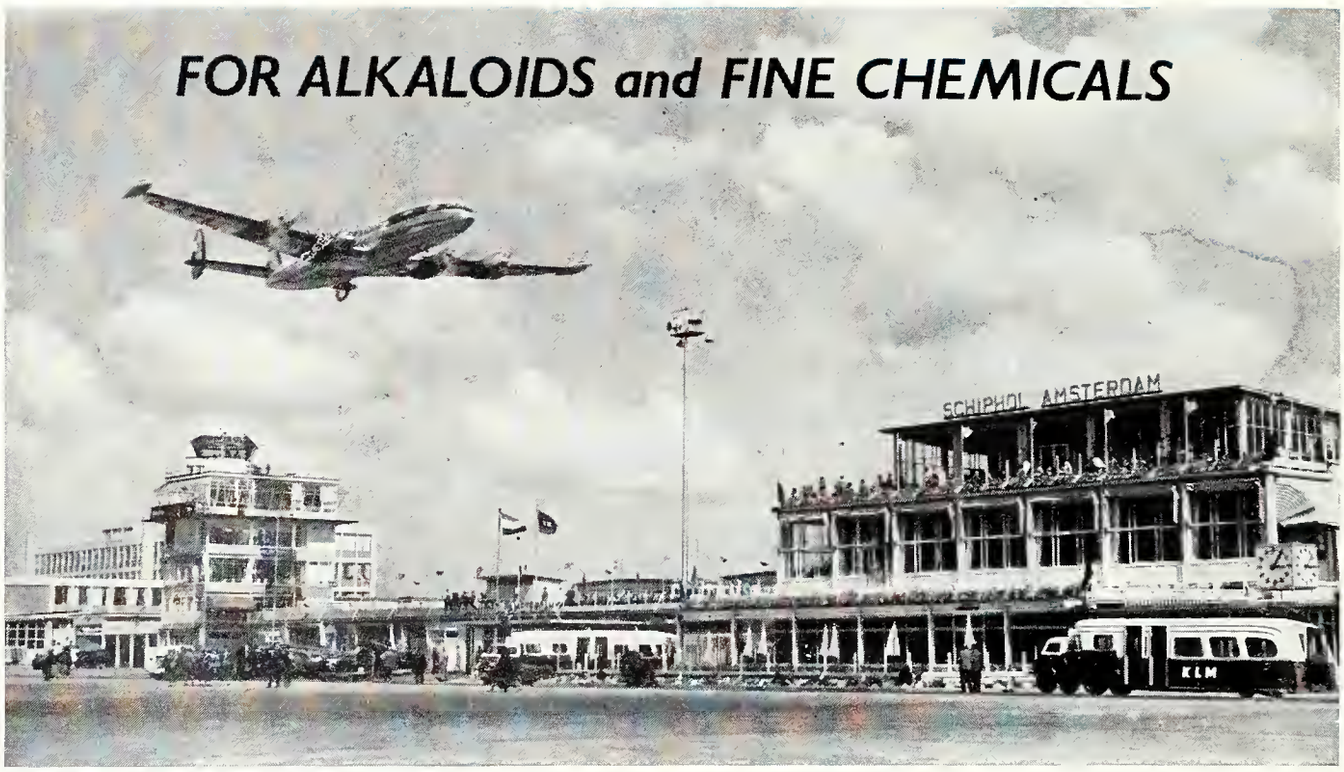
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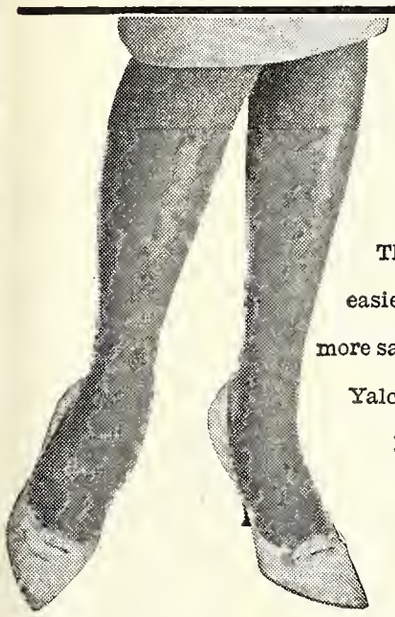
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THE CHEMIST AND DRUGGIST

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and all sections of the drug, pharmaceutical, fine chemical, cosmetic, and allied industries

Official organ of the Pharmaceutical Society of Ireland and of the Pharmaceutical Society of Northern Ireland

Volume 179 February 9, 1963 No. 4330

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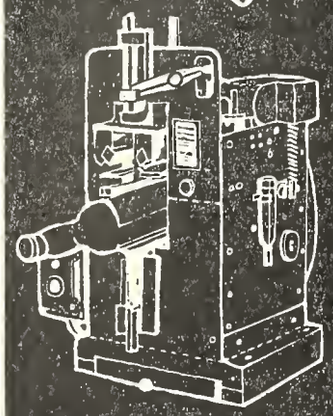
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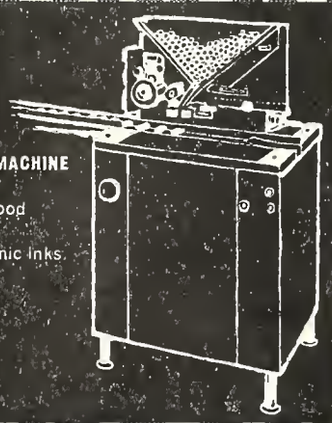
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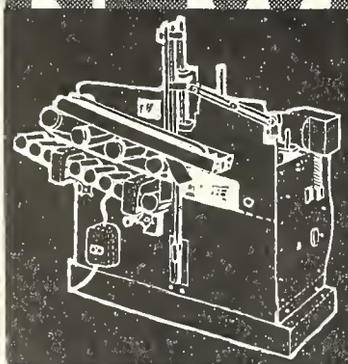
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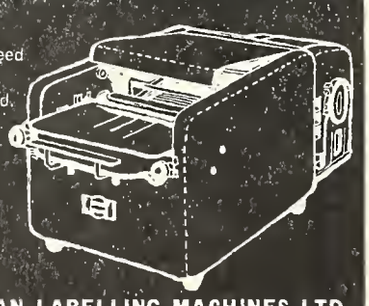
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The CHEMIST AND DRUGGIST

Volume 179 FEBRUARY 9, 1963 No. 4330

Customs Returns

MORE REVENUE FROM PURCHASE TAX

RECEIPTS from purchase tax in 1961 amounted to £521·4 millions or £11·1 millions more than in 1960.

The increase was more than accounted for by the additional receipts which accrued under the special surcharge introduced in July 1961, states the annual report of the Customs and Excise for the year ended March 31, 1962 (H.M. Stationery Office, 12s. 6d.). Since purchase tax is payable quarterly in arrear the returns mentioned above include the 10 per cent. surcharge during the period July 26 to December 31, 1961. The amount of tax obtained from drugs and medicines was £11·7 millions (against £10·4 millions); from perfumery, cosmetics, etc., £32·9 millions (£28·4 millions) and from photographic goods, £4·9 millions (£4·4 millions). The report also mentions that net receipts (after payment of drawback) from saccharin was £1·45 million (£1·54 million) and from protective duties on pharmaceutical products, £152,000.

Retail Sales

BOARD OF TRADE STATISTICS

RECENTLY issued Board of Trade figures show that sales of chemists' goods by independent retailers were 51·0 per cent. higher in December 1962 than in November 1962 and 0·6 per cent. higher than in December 1961. Multiple retailers' sales were 69·0 per cent. higher in December 1962 compared with November 1962 and 4·8 per cent. higher than in December 1961. Sales by Co-operative Societies were 53·1 per cent. higher in December 1962 than in November 1962 and 4·8 per cent. higher than in December 1961. The figures do not allow for receipts under the National Health Service.

Outmoded Drugs

WHY THEY SHOULD NOT BE USED

CRITICISM of toxic drugs whose use was no longer justified was made by Professor G. Brownlee (professor of pharmacology, King's College, London University) in an address published in the February issue of *Proceedings of the Royal Society of Medicine*. Speaking on "Outmoded Toxic Drugs," he said he had been interested in the elimination of a number of such drugs from official publications like the *British National Formulary* and the *British Pharmaceutical Codex*, but his efforts had failed, usually because of representations made by general practitioners. As examples, Professor Brownlee cited the use of mercury in Guy's pills, B.P.C.; lead salts in lotions of the B.P.C.; arsenic in ferrous carbonate and arsenic tablets, B.P.C., and strychnine in combination with purgatives and in Easton's tablets, B.P.C. There was no rational use for strychnine in therapeutics, he declared, and its availability in tablets was too hazardous to condone.

Occupational Pensions

MINISTER GIVES GOVERNMENT'S VIEW

THE Government's view of occupational pension schemes was given by the Minister of Pensions and National Insurance (Mr. Niall Macpherson), to directors and personnel and pension officers at a conference arranged by the Industrial Welfare Society on January 29. After stating the reasons for the increased graduated contributions proposed in the National Insurance Bill, 1963, which had received its second reading on the previous day (see *C. & D.*, February 2, p. 108), the Minister described the importance attached by the Government to occupational pension schemes. Those schemes, he said, could be tailored to fit the needs of particular employments. The national scheme was so large it could not build up a fund but must maintain a balance one year with another. On the other hand the occupational schemes were funded and constituted real savings. Because the State graduated scheme was maintained at a fairly modest level many employers, he was glad to note, had been encouraged to provide additional occupational pensions to "top up" the basic amount of the State scheme.

Consumer Reports

BABY FOODS AND PARACETAMOL

THE February issue of *Which?*, published by the Consumers' Association, includes reports on strained and junior baby foods, paracetamol tablets and torch batteries. Thirty-two varieties of baby food were tested from the Heinz, Trufood and Robinson's Robsoup ranges, and a table sets out the results of comparisons of price, weight, chemical composition (water, fat, protein, carbohydrate, iron and calories per ounce) and of cost per oz. for each. From tests for vitamin-C content of the fruit and vegetable varieties, both on opening and twenty-four hours later, and from bacteriological tests, *Which?* recommends that, once opened, the liquid foods should not be kept for more than three days, even when covered and stored in a refrigerator. Powdered foods can be kept for up to one month after opening. When compared to home-produced foods, the branded products were found to be as nutritious, less bother to prepare, but usually more expensive. On price consideration, Heinz and Robinson's



CIRCUS PARTY: Some of the 760 children entertained by Cussons Sons & Co., Ltd., to the Circus at Belle Vue, Manchester, on January 19. Fifteen special buses picked the children up and took them home again. The children are shown here with the clown Pepino.

strained foods, and Heinz junior foods, are given as "best buy." Reporting on tablets of paracetamol, *Which?* compares the cost, from each available pack, of twenty-five tablets of nine "ethical" and "counter" products. It recommends that, where paracetamol is required as an alternative to the cheaper drug, aspirin, the product that is cheapest in the quantity required should be chosen. Torch batteries were tested for useful life, swelling and leaking. Leakproof batteries were found safer if there was a chance that the battery might be left in the torch after it had run down. For the size of battery tested, "joint best buys" are given as Ever Ready U2 and Exide Drydex T20 (standard): Ever Ready LP U2 and Exide Drydex T21 (leakproof).

Space-ship Chemistry

CHEMICAL ENGINEERS' GUEST SPEAKER

TAKING advantage of the presence in Europe of Professor Ju Chin Chu (Polytechnic Institute, Brooklyn, U.S.A.), the Institute of Chemical Engineers invited him to address them on January 28. In a lecture on "The Rôle of the Chemical Engincer in the Space Age," Professor Chu championed the chemical engineer as "the most versatile of all the engineers" and the most likely to solve some of the innumerable unsolved problems of building craft for the exploration of outer space. In a table projected on to a screen he listed the many areas of chemical concern, including the science of materials, propellent processing, cryogenics, high-temperature thermodynamics, energy conversion, etc. He admitted to a questioner, however, that the claims of the chemical engineer to a leading place in the spacecraft design team had not been conceded in the United States, and to another that, while more graduates were entering electronic engineering than could be accommodated, in chemical engineering they were far fewer than formerly. In a field liberally mined with technical patents the professor picked his way at question time with sensitive antennae and an illuminating wit.

Applied Science

BRITISH PAPERS AT WORLD CONFERENCE

THE British delegation to the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas, which opened in Geneva on February 4, is presenting 114 papers. They cover the twelve main subjects of the conference, but are especially concerned with agriculture, health and nutrition, natural resources, transport, industrial development and communications. The confcrence will give an opportunity for the exchange of information on the extremely important question of technical development.

IRISH NEWS

THE REPUBLIC

Pharmacist Summoned

NO QUALIFIED SUPERVISION

A LIMERICK pharmacist, Mr. Jude Foley, M.P.S.I., O'Connell Street, was summoned at Limerick court on January 9 for having absented himself from his pharmacy leaving no qualified person in charge. Mr. John Gaynor for the Pharmaceutical Society of Ireland, said that an Inspector had called at the pharmacy and that two prescriptions had been made up by a lady, later discovered to be an unqualified assistant. Inquiries revealed that Mr. Foley had been acting as pharmacist in a local hospital at the time. Mr. Gaynor said that the Council of the Society took a very serious view of a pharmacist who absented himself from his pharmacy in the pursuit of gainful employment elsewhere, leaving his shop without qualified cover. Through his solicitor, Mr. Foley said that, a few days after the offence, he had secured the services of a pharmacist. On his giving an undertaking that the shop would be fully covered in future, the Justice applied the Probation Act on payment of £5 5s. costs and £4 17s. 6d. expenses. He said he did so "in view of the manner in which defendant had met the case."

Examination Results

SUCCESSFUL CANDIDATES

THE following have passed the Second Professional (supplemental) examination of the Pharmaceutical Society of Ireland:—Ann Ahern; Sister M. Regis (M.M.M.) Cosgrove; Mrs. Catherine Gleeson; Sheila McGovern; Mary D. Mullally, Esther Murphy; Margaret Nagle; James E. Power; Mary Walsh; Anthony Walsh.

THE NORTH

No Longer on List

SUPERMARKET PHARMACY CLOSES

THE Northern Ireland General Health Services Board has approved an application for the closure of the pharmacy section of a supermarket and withdrawal from its pharmaceutical list. An executive committee recommendation on those lines was adopted at the Board's January meeting, and the closure and withdrawal became operative on February 4. A finance committee recommendation for the payment of accounts totalling £247,422 was also adopted. The medical advisory committee reported that a letter had been received from the Ministry endorsing the Board's opinion that sterile gauze swabs were prescribable under the terms of paragraph 15 of the Drug Tariff.

Manufactured Toilet Preparations

UNITED KINGDOM PRODUCTION, SEPTEMBER-NOVEMBER, 1962

SALES of toilet preparations by manufacturers in the United Kingdom during the three months September-November 1962 at £19·8 millions were 3 per cent. more, at current values, than in the corresponding period of 1961; sales for export at £2·5 millions were unchanged, home market sales, £17·3 millions being 3½ per cent. up. The analysis of home sales shows that the increase was accounted for wholly by dental preparations (up by nearly 5 per cent.) and by the category "other toilet preparations" (face powders, lipsticks, creams, bath preparations, deodorants, etc.), up by 6½ per cent.; sales of perfumes and toilet waters were unchanged, and of hair preparations slightly reduced, compared with a year earlier. The cumulative figures for the year ending November 1962 give an increasc in total sales of some 2½ per cent. over 1961; in export sales, a reduction, due to a poor first quarter, of 6 pcr cent., in home sales an increase of 4 per cent. evenly shared by hair preparations (up 5 per cent.), other toilet preparations (up 4 per cent.) and dental preparations (also up by nearly 4 per cent). All the above comparisons in value terms must be modified by the changes in wholesale prices for an appreciation of volume of sales. Wholesale prices in 1962 were nearly 4 per cent. higher than in 1961, and in September-November 1962, the increase over a year earlier was rather higher still; so that both for 1962 as a whole and for the quarter under review the volume of sales would appear to have been not significantly different from the earlier periods.

MANUFACTURERS' QUARTERLY SALES (£ THOUSANDS)

Three months ended	Total sales	For home market					For export Total
		Total	Perfumes, toilet waters	Hair preparations	Other toilet preparations	Dental preparations	
1961 February	12,685	10,109	461	3,383	3,915	2,350	2,576
May	15,138	12,768	644	4,505	4,995	2,624	2,370
August	16,247	13,843	813	4,677	5,530	2,823	2,404
November	19,209	16,730	1,825	4,815	7,452	2,638	2,479
1962 February	12,825	10,850	476	3,952	4,060	2,363	1,975
May	15,619	13,185	615	4,607	5,311	2,651	2,434
August	16,735	14,385	869	4,966	5,497	3,053	2,350
November	19,771	17,290	1,825	4,756	7,946	2,762	2,481

IRISH BREVITIES

THE REPUBLIC

A LARGE attendance at the dinner and dance sponsored by the West of Ireland Chemists' Association in Galway recently included the mayor of Galway (Ald. P. D. Ryan); Mr. D. Kennelly (president, Pharmaceutical Society of Ireland) and Mrs. Kennelly; Mr. J. G. Coleman (registrar); Mr. P. Cassidy (chairman, West of Ireland Chemists' Association) and Mrs. Cassidy; Mr. O. Flannery (vice-president); Mr. B. Smith (secretary, Irish Drug Association) and Mrs. Smith and Dr. C. E. McConn (County Medical Officer of Health) and Mrs. McConn.

NEWS IN BRIEF

THE Proprietary Articles Trade Association report that their telephone service has now been restored.

SIR Keith Joseph (Minister of Housing and Local Government) has confirmed an order designating Dawley, Salop, as a new town, the thirteenth in England and Wales.

THE nineteenth International Congress of Pure and Applied Chemistry is being held in London, July 10-17. Details may be obtained from the Congress secretary, 14 Belgrave Square, London, S.W.1.

DANGEROUS Drugs and cameras were stolen when thieves raided the pharmacy of Mr. W. L. Fairhurst, 341 Upper Parliament Street, Liverpool, recently. Entry was made through adjoining, unoccupied premises.

MR. W. D. Macrae, M.R.C.V.S., D.V.S.M., and Mr. James Reid, M.R.C.V.S., D.V.S.M., have been appointed deputy chief veterinary officers of the Ministry of Agriculture, Fisheries and Food.

A REVISED edition of Notice No. 78, "Goods chargeable with Purchase Tax," is being issued by the Commissioners of Customs and Excise. The new edition supersedes the issue dated November 1959, including the collated amendment slip, and Notices No. 78C and No. 78R, both dated April 1962.

THE director-general of the World Health Organisation, Dr. M. G. Candau, whose current contract expires on July 20, has again been nominated for the post by the executive board. His nomination will be considered by the World Health Assembly, which opens in Geneva on May 7.

THE 1963 list of products approved under the Agricultural Chemicals Approval Scheme is now available free of charge. The list includes almost 600 products based on more than 100 chemicals or mixtures of chemicals used for pest, disease and weed control and is obtainable from local divisional offices of the Ministry of Agriculture.

PERCENTAGE changes in pharmacy sales of 160 representative Co-operative societies in Britain for the four weeks ended November 24, 1962, compared with those of a similar period a year earlier, were: Midland, minus 0·35; Northern, minus 0·10; North-east, plus 2·34; North-west, plus 7·94; Scottish, plus 0·14; Southern, plus 0·39; South-west, minus 1·47; Western, plus 10·53; Great Britain, plus 1·35.

TOPICAL REFLECTIONS

By Xrayser

Qualifications

The resolution (p. 83) standing in the name of the Swansea Branch of the Pharmaceutical Society, and relating to the qualifications of medical representatives, should be productive of interesting debate at the meeting of Branch Representatives on May 23. The opinion of the Swansea members (which they hope will prove to be a national opinion) is that all medical representatives in the possession of scheduled poisons and therapeutic substances should be pharmaceutically qualified. It is true that not all such representatives hold a pharmaceutical qualification, and it is only necessary to scan the advertisements for vacancies in some companies to see that no great significance is attached to a degree or a diploma. A "background" in medicine or pharmacy is regarded as an advantage, but those who have a G.C.E. standard of education and the happy faculty of absorbing technical knowledge are not considered unsuitable. I have known many such who, to all appearances, did not seem to find the lack of a qualification too great a handicap in interviewing a doctor and leaving with him appropriate literature and samples. I do not know the extent of the course of training given, but I feel positive it is considerably shorter in duration than that of the student who qualifies either through a university degree course or that leading to the Pharmaceutical Society's diploma. The knowledge displayed by the trained but in other respects "unqualified" representative tends to be limited, not extending far beyond either the products being detailed or their rivals in the same field. I must confess that I have a certain prejudice in favour of the representative who can talk from a full knowledge and not merely from the restricted field of specialised tuition.

Possession

I realise that the ability or the qualification of the medical representative to inform is not the substance of the Swansea resolution. The concern is implicit in the words "in possession of scheduled poisons." It must be presumed that there is no legal objection in the present position, otherwise steps would have been taken to regularise it. There must be many points in distribution where, for some period, scheduled poisons and therapeutic substances are temporarily out of the hands and out of the control of qualified persons. There is the question of transit between the wholesaler and the pharmacy (or pharmaceutical department in hospital) during which time the substance is in the temporary possession of vanman or messenger. There is also the possession—sometimes in large quantities—of drugs by the person who is taking them, and while there may be reservations and, indeed, misgivings in that direction, there is no question of regarding that possession as unauthorised. It will be extremely interesting to hear the discussion on the resolution, for it may be argued that the leaving of samples does constitute distribution, which, in turn, calls for documentary evidence of that distribution. In that sense, the medical representative may, technically, be his firm's messenger, as is the vanman who obtains a signature for the dangerous drug on delivery. And while it may be the opinion of the meeting that the resolution should be adopted, I cannot clearly see what action the Society could take and, indeed, the resolution does not suggest any.

Hospital pharmacists

At a recent meeting of delegates of the Guild of Public Pharmacists, a motion was carried (p. 118) requesting that the Council of the Pharmaceutical Society should be asked to place the view before the Minister of Health that the attitude expressed by representatives of the management side of the Pharmaceutical Whitley Council, Committee C, was derogatory to the hospital pharmaceutical service. My feeling at the time was that the strictures went much wider than the service itself, reflecting on pharmacy as a profession and as a whole. There is a great need for co-ordinating all the efforts of all concerned, and it seems a pity that the Society was not consulted earlier.

Statutory Committee

FOUR CASES HEARD: ONE NAME REMOVED

THE Statutory Committee of the Pharmaceutical Society proceeded at a meeting in London on January 29 and 30 to inquire into the case of a pharmacist alleged to have sold illegally on June 9, 1962, some Doriden tablets otherwise than in accordance with a valid prescription. The pharmacist, who was present, was accompanied by Mr. Rodney Bax, counsel, instructed by Lamartine, Yates & Lacey (solicitors). Mr. A. C. Castle (the Pharmaceutical Society's solicitor) appeared to place the facts before the Committee. He said that the case involved a young lady who entered a pharmacy she had never been in before and asked the pharmacist for some Doriden tablets. He did not ask the young lady for a prescription, but supplied her. The tablets were properly labelled. She paid for them and left the premises. "This young lady," said Mr. Castle, "was addicted to this type of tablet and had apparently been obtaining supplies elsewhere. She was a long way from home." She took too many of the tablets and was taken to hospital, where the bottle was found in her handbag.

One of the Society's inspectors (Mr. E. Hunt) subsequently saw the pharmacist, who was completely frank about the whole thing. He said, "Frankly, I don't remember having sold these tablets to this young lady. If you say I sold them then I have sold them. I occasionally dispense them under the National Health Service." The pharmacist produced his stock bottle of the tablets. "They bore no indication that they were Schedule 4. They were rather old stock."

The First Time

"Perhaps I should mention," added Mr. Castle, "that this is the first case in a matter of this kind involving Doriden which has been brought before this Committee; it is the first time that the Law Committee of the Society's Council have considered an infringement involving Doriden tablets." During his evidence Mr. Hunt told the Committee that the pharmacist, when questioned, said he had not realised until the end of June or the beginning of July 1962 that Doriden had been added to the Fourth Schedule. In July he obtained new stocks and the new stock had Schedule 4 written on the tin. Later Mr. Hunt said he thought the pharmacist was genuine in his explanation and that the sale was an innocent oversight.

Cross-examined by Mr. Bax, Mr. Hunt confirmed that an agent had tried to make a test purchase of Doriden tablets on August 13, 1962, and had been refused, and that, when the pharmacist was prosecuted in October 1962, the magistrates had granted him an absolute discharge.

After counsel had addressed the Committee, the pharmacist was called. During examination he said that the stock of tablets had been purchased in September 1961. The tablets were made subject to control on September 18, 1961. The container did not indicate any restrictions. Asked how he came to miss noting the fact that glutethimide had been Scheduled, the pharmacist replied: "I obviously did not read it in the *Journal* at that date because I was extremely busy at the time. I had just taken over the shop and we were decorating until about midnight, so quite likely I did not read it; in fact, I know I did not."

THE CHAIRMAN: "What steps do you take as a rule to check additions to the Fourth Schedule?" THE PHARMACIST: "Normally I rely on the *Pharmaceutical Journal*. I read that every week. Some recent additions have been put into effect."

"You realise it might have led to the death of this young woman through not checking it?" "Well, it could have done, yes, but actually I have no recollection of selling them. That is the whole point. It is entirely against my nature."'

After the Committee had considered the case, THE CHAIRMAN told the pharmacist that "in the opinion of this Committee the Fourth Schedule and its contents and the strict observance of the injunctions that it involves are of the highest public importance, and in the Committee's view a very high standard of duty rests upon your profession in this respect. It is of the utmost importance that every pharmacist should be scrupulous and diligent in acquainting himself with the changes that take place in the Schedule from time to time, and in the view of the Committee a sale such as you made could, in given circumstances, lead to the view that a pharmacist is unfit to remain on the register. It must not be thought that the failure to observe changes in the Schedule constitutes in any way excusable conduct. Having said that, the Committee are pleased to be able to accept the evidence given by Mr. Hunt and, indeed, your own evidence that this was an isolated lapse, and they propose in the circumstances to make no direction."

"For One Reason Alone"

The second inquiry concerned a pharmacist who had, on November 14, 1962, at a magistrates' court, pleaded not guilty to, but been convicted of, illegally selling on four occasions between July 5 and 6, July 12 and 13, July 19 and 20 and July 26 and 27, 1962, phenmetrazine hydrochloride (in Preludin tablets) a Schedule 4B poison, otherwise than in accordance with duly given prescriptions. For each of the offences the pharmacist had been fined £10, with £13 costs. He was present at the inquiry, accompanied by Mr. Rodney Bax (counsel) instructed by Lamartine, Yates & Lacey (solicitors).

Mr. A. C. Castle (solicitor), placing the facts before the Committee, said that the pharmacist was visited by a police officer on July 30, 1962, and interviewed concerning the supply of Preludin tablets to a Miss H——. The pharmacist did not deny that he had supplied the Preludin tablets to her on a number of occasions without medical prescriptions. As a consequence of the admission the Law Committee of the Pharmaceutical Society's Council had recommended that proceedings should be instituted against him. A police sergeant gave evidence about the proceedings in the magistrates' court and, when cross-examined by Mr. Bax, said that, apart from that matter, there was no suggestion that the pharmacist had supplied any drug improperly to any other person. Miss H—— had been acting in a private capacity as a private nurse and, at the time in question, was employed as a nurse in a private nursing home in the vicinity. The local residents held the pharmacist in high esteem. Mr. Bax sought permission to place before the Committee a petition bearing 180 signatures of local residents and testifying their appreciation of the pharmacist's services; two statutory declarations from medical practitioners; a letter from the local mayor, and others from individuals all referring to the pharmacist's high standing and integrity. The pharmacist, during examination by his counsel, gave details of his career and later told the Committee that the nurse—known as Sister H—— was in charge of a nursing home that was next to the pharmacy. She became very friendly with his wife, and was "almost a member of the household."

Helped With Nursing

The Sister, in spite of appearing overworked and understaffed, helped with the nursing of the pharmacist's mother, who was bedridden for some months, either doing some night nursing herself or lending her one of the assistant nurses, and never charging anything. Mr. Bax then asked: I want you to be quite frank with the Committee about this. Used she to buy Preludin tablets from you before they were put on the Fourth Schedule?—Yes, she did.

Counsel: On what terms did you sell them to her?—The usual professional discount of 10 per cent.

Did you then go on supplying her after you should not have?—I did on a few occasions but not as many occasions as in the evidence.

Asked why he supplied the Sister he replied: "Well, she pressed me for them and I felt under an obligation to her." After the pharmacist had been cross-examined by MR. CASTLE, the Committee was addressed by MR. BAX, who described the case as a lamentable one. He referred to the petitions, statutory declarations, and letters, and the police officer's evidence concerning the pharmacist's reputation and service in the locality. "The real tragedy in this case is that here is a man who has been associated with pharmacy for, in effect, half a century, who . . . finds himself before this Committee charged with a grave offence." It was quite clear that he never supplied anybody except the woman, Sister H——, with any prohibited substances, in that respect the case differed from many that came

before the Committee. One person only was being supplied. It is evident that she was pretty persistent about it, and he was under a deep obligation to her.

After the Committee had retired to consider the case, THE CHAIRMAN addressed the pharmacist. He said that the Committee found that the convictions were proved. "They are also of the opinion that such convictions are such as to render you a person unfit to be on the register. . . . It has been said before at this table, and I repeat now, that the whole policy of the Pharmacy Acts will be brought to naught if pharmacists yield to the temptation of selling drugs which they know ought not to be sold without prescription. In your case it is plain that you are a person of excellent character, and a heavy burden rests on the Committee in making a decision. With considerable misgiving the Committee have come to the conclusion that they are justified in your case in not directing your name to be removed from the register. It is right that I should say one word as to the reason for that conclusion. The Committee are satisfied that, in your case, the sales which are the subject of the convictions were made to one person and to no more, and that person was a person who put you under exceptional pressure in circumstances in which you were under great personal obligations to her."

It was for that reason, and for that reason alone, that the Committee did not direct the name to be removed, but they thought it right that a reprimand should be made "in the severest terms."

Third Case

The third case concerned a pharmacist who had been convicted of illegally selling at various dates amylobarbitone sodium (in Tuinal capsules); pentobarbitone sodium (in Nembutal capsules); amylobarbitone and dexamphetamine sulphate (in Drinamyl tablets), each subject to the Fourth Schedule to the Poisons Rules as amended, and none of the sales having been made in accordance with prescriptions, and in respect of which transactions the pharmacist had been fined £10 for each offence; also of having illegally sold, in June 1962, a solution of strychnine hydrochloride, not as an ingredient in a medicine, contrary to the Poisons Rules and Section 24 (1) of the Pharmacy and Poisons Act, 1933, and in respect of which offence he had been fined £10, with £6 6s. costs.

The pharmacist attended the hearing, accompanied by Mr. Peter Boydell, counsel, instructed by Shirley, Turner & Harrison, solicitors. Mr. A. C. Castle appeared in order to place the facts before the Committee. A typing error in the notice of inquiry was, by consent, amended. The pharmacist was referred to as the managing director of a company owning a pharmacy at which, on August 28, 1962, one of the Society's inspectors called on a routine visit. The inspector required to see prescriptions that had been dispensed, including those for drugs supplied to a nursing home. The book was produced on the following day, but merely concerned nursing-home supplies. The inspector asked for prescriptions to support the supplies of drugs, eleven in all, for a particular patient. The pharmacist could not produce them and admitted, after further conversation, that he had no prescriptions for the drugs concerned. The period covered ran from April 2 to June 30, 1962. The matter was reported by the inspector to the Council of the Pharmaceutical Society and in due course the Council directed that legal proceedings should be instituted against the member for selling the drugs not on and in accordance with medical prescriptions. In due course the matters came before the magistrates, with the results already stated. In the further charge involving an alleged illegal sale of strychnine hydrochloride, the drug was entered in the poisons register and the purchaser's signature was affixed to the entry, but the pharmacist was asked to proudce an authorisation from the Agricultural Committee as required by the Poisons Rules, and said he did not know that one was required. The pharmacist was not represented before the magistrates.

The supplies to the nursing home were at the request of a sister-in-charge at the home who was accustomed to telephone the pharmacist and ask for certain drugs.

"Perfectly Frank"

The inspector, cross-examined by Mr. Boydell, said that at all times the pharmacist had been perfectly frank. A doctor "of the highest reputation" had given evidence at the magistrates' court on the pharmacist's behalf.

The inspector said that the pharmacist had on many occasions supplied drugs to the nursing home for the doctor's patients when the sister had requested it. On those occasions the doctor had sent a prescription shortly after the drugs had been supplied.

Counsel: And, of course, provided the prescription was sent by the doctor to the pharmacist within twenty-four hours, there would be no offence, would there?—No.

The pharmacist had produced for the inspector a selection of the written notes he had received from the sister.

Counsel put forward evidence of the pharmacist's character and high reputation locally. He said that the pharmacist might have been careless, but was not deliberately flouting the law.

Giving the Committee's judgment, THE CHAIRMAN said the Committee found the convictions proved, except that which related to the sale of Nembutal capsules. The Committee felt it would be wrong to take any account of that offence. In the Committee's opinion such convictions were of a kind that might in many circumstances render a person unfit to remain on the register. They did not propose to direct that the name should be removed from the register, "for this reason and for this reason only. They think that you were to some extent lulled into a sense of false security by the medical practitioners with whom you were dealing in relation to the nursing home that has been discussed in this case, and they think that, albeit wrongly, you were in fact led to believe that the very loose and lax way in which you supplied drugs to this nursing home was at any rate not disapproved of by the medical profession, and that the profession would in due course have regularised the position for you." The Committee did direct that a reprimand in the severest terms should be recorded against the pharmacist. His methods were extremely lax, and he had continued to supply drugs without a prescription far beyond the period when any possible promises had expired. Nurses and nursing homes, registered or unregistered, were not in a special position. The Committee wanted to make it plain that the time had come when it would have to consider whether, in future, they could accept as in any way extenuating, still less excusing, offences of that nature, that a supply was made to a nurse or to a nursing home.

A Name Struck Off

In the fourth case, heard on January 30, the Committee inquired into the case of Robert Howard Swinn, 34 Upper Duke Street, Hulme, Manchester, 15, who, on November 20, 1962, at the city magistrates' court, Manchester, had pleaded guilty to and been convicted of having illegally sold, on September 3, Preludin tablets, Drinamyl tablets and sodium Amytal capsules, all Fourth Schedule poisons, otherwise than in accordance with prescriptions; of having illegally sold the poisons in containers not labelled in the prescribed manner and contrary to Section 18(1)(c) of the Pharmacy and Poisons Act, 1933; and who had, for each of the six offences, been fined £15, with £30 costs.

Mr. Swinn was accompanied by Mr. J. S. Mills (solicitor, of Fox, Brooks, Marshall & Co., Manchester). Mr. A. C. Castle (solicitor), who placed the facts before the Committee, said that, on September 3, 1962, Mr. Dale (one of the Society's inspectors) had visited 34 Upper Duke Street, Hulme, in company with a Mrs. McComb. Mr. Dale had given certain instructions to Mrs. McComb outside or near to the doorway of Mr. Swinn's pharmacy, and she went into the pharmacy at about 12.20 p.m. Mrs. McComb said, "I want some tablets for my sister Helen," Mr. Swinn asked, "What do you want?" and she replied, "I want some Drinamyl, some Preludin and some sleeping tablets." Mr. Swinn replied "Well, I would rather she came in herself." Mrs. McComb: "I have been in before with her and bought some," and Mr. Swinn replied, "I might as well get into trouble for something as for nothing. How many would you like?" She said "I would like 100 Drinamyl tablets and 100 Preludin and some sleeping tablets," and Mr. Swinn then went into his dispensary, the back portion of his pharmacy, and returned shortly afterwards with five small boxes. The boxes were completely unlabelled. "The writing on them now is that of Mrs. McComb, to identify the boxes."

Mrs. McComb paid for the items. There was some dispute as to how much she actually paid, because she did buy one or two other items of a cosmetic character, "but Mr. Mills and

I have agreed that the sum that Mrs. McComb paid was £1 11s. 6d. for the tablets."

Mrs. McComb then left the premises and returned to Mr. Dale, who went into the shop and said to Mr. Swinn, "You have just sold these tablets"—producing the boxes—"to a lady without prescription." Mr. Swinn replied "Yes, I slipped up," and the inspector then warned Mr. Swinn and asked him if he had any explanation to offer. Mr. Swinn said "What explanation can I have?" He said he received thousands of requests for Drinamyl and Preludin by members of the public who were not in possession of prescriptions, and he thought they were widely sold without prescription and that "he might as well join in." During evidence Mr. Dale told the Committee that he had had no previous complaint or suspicion about Mr. Swinn, but a medical practitioner had complained to the police about irregular sales in Manchester and through the doctor the inspector had contacted Mrs. McComb, who was a patient. The inspector said he had seen another pharmacist who had committed suicide as a result of the investigation. At Mr. Swinn's pharmacy he gave Mrs. McComb a £5 note and told her "to go in and buy what you normally buy in the way that you buy it." Mr. Dale agreed that he had no reason to suspect that Mr. Swinn was making an inordinate and illegal profit from his business.

MR. L. PRIEST gave evidence about the pharmacological action of the drugs.

"Dolly Mixtures"

MR. SWINN told the Committee that Mrs. McComb asked first of all for some Max Factor preparations and then she asked if she could have some Drinamyl tablets, which he refused to sell her. She persisted and said "You know who I am? You know my sister well enough," and I said "Yes, that's right." Mr. Swinn said that she asked again and ". . . I am afraid I said, 'Yes, all right, you can, then.'" She then asked if she could have 100. When asked if he did not regard that as an unusual quantity, Mr. Swinn replied "It is not an awful lot, the way they throw them about nowadays. They prescribe these things as though they are dolly mixtures, you know."

Mr. Mills: "Did you go and make up that prescription then?"—"It was not a prescription . . . I was counting them out and she said could she have some Preludin as well." She asked if she could have a pound's worth and I gave her eighty tablets. They are 5s. for twenty, or they used to be when we were allowed to sell them."

When asked for the sleeping capsules, Mr. Swinn said he replied "You should not have those really but I will let you have half a dozen this time."

Later Mr. Mills handed in a petition which had approximately 2,000 signatures in support of Mr. Swinn.

Mr. Mills submitted a written statement by Mrs. McComb and pointed out where she declared that she had not been into Mr. Swinn's shop for about two years. Then further down, when asked where she could obtain some prescriptions, she said, "I said I thought I might be able to get some at Mr. Swinn's with a little persuasion as he was a friend of mine." Further down, "So I went to the shop and asked for some Preludin tablets. Mr. Swinn said, 'This time, yes, but not again,' after I had coaxed him a bit."

MR. CASTLE: "By agreement I would like to make this statement, that the point my friend is trying to make, I understand, is that this lady exercised persuasion on Mr. Swinn. I would not dispute that. She probably did. But you will gather from that statement that she is probably a very unreliable woman, and that is why she is not here this afternoon. I would not hold her up as a witness to be entirely relied upon."

THE CHAIRMAN: "You are not holding her out as a witness at all?"

MR. CASTLE: "Not this afternoon, and that is why I have not called her, but on the question of persuasion I would entirely agree that she probably did exercise persuasion. She was not acting on instructions from Mr. Dale as far as persuasion is concerned, if I may add that."

A Normal Business

MR. MILLS then addressed the Committee. He pointed out that his client ran a normal business, he kept his records properly and he received no warnings from either Mr. Dale or any other inspector. Mr. Mills referred to the method of investigation. "The regulation does say that an inspector can take reasonable steps to see that the Act has been complied with. As a result of the methods he adopted on this occasion there has been one suicide. He used a drug addict, he gave her 'perks,' she got a drink afterwards and she got the cosmetics. When the incident happened at the shop itself my client did not give way the first time. You have heard him say that he took some persuasion. She had to ask initially for drugs and then three times afterwards for each separate drug.

The conviction for the offences is a matter of fact . . . It is only as a result of the conviction and the surrounding circumstances that you should decide whether or not he is unfit to be on the register, not merely because of the conviction but on the basis of his character, the method of the inquiry by the inspector and his subsequent dealings." He asked the Committee to bear in mind Mr. Swinn's good record before the offence and since the offence, the fact that there was no other charge against him.

After the Committee had considered the case, THE CHAIRMAN said that in the opinion of the Committee the convictions had been proved and in their opinion they were such as to render Mr. Swinn unfit to be on the register. "The question then is whether in all the circumstances they ought to make a direction removing your name from the register, and they think in this case there should be such a direction, for this reason. Two of the three drugs, at any rate, that I have mentioned are habit-forming drugs, and when you asked for an explanation of why you had sold them without a medical prescription you said this: 'What explanation can I have? I receive thousands of requests from the public for the sale of these drugs without prescriptions, they are widely sold. I thought I might as well join in.' You did not ask for a prescription, you knew there was no possibility of a prescription and the answers I have just quoted appear to the Committee to indicate an attitude towards your responsibilities as a pharmacist which is quite inconsistent with the proper discharge of the public duties that are involved in being a pharmacist.

"Accordingly a direction will be made that your name be removed from the register. You have a right to appeal and you have a right to apply, as you may be advised, to have your name restored."

MR. CASTLE: "I am instructed to protest at what my friend Mr. Mills said about 'perks' that this woman obtained from the purchase of these medicaments, including cosmetics. I understand from Mr. Dale that he handed her this £5 to go into the shop and it was because of her condition after she left the shop that he provided her with some refreshment. I do not quite know what Mr. Mills was trying to suggest—whether it was that she was being induced, by material benefit which she might derive, to do what she was asked to do. That was not the case, and in my respectful submission Mr. Dale acted perfectly properly and within the scope of his duty and quite reasonably, as required by the statute." THE CHAIRMAN: "Thank you. What you have said will appear on the record and it has been said in public. As you are aware, in litigation of this nature all sorts of subsidiary issues arise and it is not within the functions of this Committee to pronounce upon them." MR. CASTLE: "I am much obliged to you."

OVERSEAS VISITS

MR. H. O. ANNETT (pharmaceutical products export manager of William R. Warner & Co., Ltd., Eastleigh, Hants), is leaving England on February 11 for a tour of the company's markets in the Middle East. He is visiting Malta, Lebanon, Cyprus, Jordan, Iraq, Syria, Saudi Arabia, Egypt, Sudan and Ethiopia. The tour will last a month.

MESSRS. G. V. K. BURTON (chairman), C. Merrick (managing director) of Fisons Overseas, Ltd., and A. P. Lowes (joint managing director, Whiffen & Sons, Ltd.), left on February 3 for a 15,000-mile tour of India. Concerned with extending the range of Fisons activities in India within the chemical industry, they are in the course of the tour visiting the new pharmaceutical factories of Benger Laboratories (India), Ltd., near Calcutta, which will shortly be in full production, and the Teddington Chemical Factory at Bombay.

N.H.S. STATISTICS

In ENGLAND during September 1962, 13,156,444 prescriptions (9,163,772 forms) were dispensed at a total cost of £5,775,617. Average total cost per prescription 105·36d.

In SURREY during July 1962, 428,321 prescriptions were dispensed at a total cost of £204,678. Average cost per prescription 114·69d. During August, 1962, 398,334 prescriptions were dispensed at a total cost of £192,017, an average of 115·69d. per prescription.

IN PARLIAMENT

By a Member of the Press Gallery, House of Commons

THERE was a short discussion on the Pharmacy and Poisons Act, 1933, and similar legislation in the House of Commons on January 30. Dr. Barnett Stross initiated the discussion on a motion to annul the Poisons List Order, 1962, and Poisons Rules, 1962 (see *C. & D.*, December 22, 1962, p. 662).

"Some Complication"

Dr. Stross said it was "a subject of some complication." The purpose of the measures was to say who should be responsible for prescribing a particular drug or so-called poison, and whether certain substances should be made available in designated places or completely and freely available. The Departmental Committee on the Poisons and Pharmacy Acts, set up in 1930, had recommended that the Home Secretary should be the responsible Minister, and Dr. Stross suggested that the whole matter should be reconsidered. The Home Secretary was responsible for Dangerous Drugs; the Minister of Health for Therapeutic Substances, the Minister of Health and the Minister of Agriculture, Fisheries .and Food were jointly involved in matters of food adulteration and food additives, but in connection with the Agriculture (Poisonous Substances) Act, 1952, the Minister of Agriculture, Fisheries and Food was alone responsible. In the Order under discussion, thirty-one substances were being controlled for the first time. Diuretics, slimming preparations, anti-inflammatory agents and antihistamine drugs were included in the Poisons List, and Dr. Stross could not see what they had to do with the Home Secretary. He continued "In 1930 Pandora's box was not properly opened, and chemists and manufacturers were not giving us all these strange, new, remarkably valuable synthetic drugs, some or all of which tend to have side effects and have to be carefully watched." He was sure that, if the Departmental Committee were sitting at the present time, it would come to a different conclusion. The House should say the control of such drugs should be the responsibility of the Minister of Health, the Minister of Agriculture, Fisheries and Food and the Secretary of State for Scotland. Dr. Stross suggested it would be wise to provide that new drugs should come into Part I of the Poisons List "unless we are quite sure they are safe—and then, after experience of two or three years, perhaps be taken off the List." He wanted to know what the criteria were, and what mechanism was employed, to place a drug in either Part I or Part II of the Poisons List and he asked for an explanation of the reason for the change of procedure in appointing what was described as "a person duly authorised by the Minister of Agriculture, Fisheries and Food."

Sir Hugh Linstead said it was clear that the Poisons List Orders and Poisons Rules now provided an extremely clumsy machine to achieve their purpose. "What the public requires today, in reference to medicines in particular, is protection against impure medicines; medicines inaccurately manufactured; medicines being freely sold which give rise to addiction; medicines which may give rise to acute or chronic toxicity; medicines with deleterious side effects; the making of unjustified claims of therapeutic working and medicines which are dangerous if administered without proper supervision." He added "It is extremely difficult, under the corpus of medicine legislation — at the moment a patchwork of historical accidents — to give the public that comprehensive protection to which it is entitled." The House and the Government had never faced the problem of how best to provide the drugs to the public. Medicines could give rise to far more problems than was realised even thirty years ago, when drugs of addiction were first recognised. "We have never taught the public to regard medicines as something in almost all circumstances to be taken with caution." The Poisons Board was not a right instrument for the task that was required to be fulfilled.

Seven Acts

There were no fewer than seven Acts of Parliament dealing with poisons or medicines and eight authorities responsible in one way or another for prescribing standards for medicines or standards for purity on different subjects. There were certainly three groups of enforcement authorities, the Health Ministry, local authorities and the Pharmaceutical Society. "With that jungle of confused legislation and confused responsibility, it is beginning to become extremely clear that we need a comprehensive review of the whole field and the replacement of these bits of historical legislation by one comprehensive statute." There must be a separation of legislation on medicines from legislation on poisons. "We cannot legislate for two things as far apart in daily use as a medicine and a sheep dip merely because of the accident that they both contain sodium arsenite, which is what the Rules seek to do." Sir Hugh suggested that the Minister of Health, rather than the Home Secretary, should be the responsible Minister, and that there should be one basic statute to deal with the whole of the necessary legislation covering the control of medicines, which would require "at the service of the Minister of Health some expert advisory body which could tell him which are the medicines that need control." Sir Hugh ended his speech by saying: "If we are to carry on as we are doing now with this old, and in some cases Victorian, machinery we shall have unsatisfactory results in spite of the efforts of civil servants and experts to make the machine work."

Mr. Kenneth Robinson suggested that, although the Poisons Board did excellent work, it was not one of the most rapidly moving agents of the Government. The Minister of Health could not divest himself of his responsibility in these matters. "He has a duty if only to advise prescribers about drugs, and he has to institute a parallel investigation with his advisory committee, which may have different personnel, or some personnel common to the Poisons Board." Sir Hugh Linstead interrupted, declaring: "It is worth putting on record that the Council of the Pharmaceutical Society has been very wise in this respect and has given advice to chemists well in advance of action taken by the Home Office. In the vast majority of cases that has stopped the sale of these questionable drugs across the counter. But the fact that this has to be done emphasises how slowly the machine works."

The Home Office View

Mr. C. M. Woodhouse (Joint Under-Secretary of State for the Home Department) said that the Home Office would willingly give up its present responsibility if any other better arrangements could be found. Although consideration would be given to the suggestions that had been made during the debate it was at first sight difficult to know how all the responsibilities could be "brought under one roof." It was possible to exaggerate the danger of divided responsibility that arose from the present arrangements. Even if the Minister of Health were to be responsible, he must act on expert advice that must "come from very much the same quarter that it comes from today." It was open to anybody to make representations to the Secretary of State suggesting that a particular substance should be controlled as a poison, but the majority of such submissions came either from the manufacturers or from the Pharmaceutical Society or one of the departments represented on the Board. The Board normally met once a year, but there was no fixed routine. The next meeting would take place in the middle of February. The regularity of meetings depended upon the urgency and volume of the business that had to be dealt with. Mr. Woodhouse undertook to give serious consideration to the suggestion that everything should be on the Poisons List until it was taken off. "The essential consideration is whether the unregulated sale or supply or storage or transport of a given substance would be a danger to the public! The distinction between Parts I and II was broadly that part 1 included substances that were used in the treatment of human ailments, and Part II included other substances that were in common use, such as animal medicines, household articles, caustic soda and pesticides. The additions to Part I of the Order under discussion numbered thirty-three and included drugs that acted on the central nervous system; antihistamines, and diuretics. It had been argued that those drugs should not be treated as poisons at all, but the fact was that, under present legislation, there was no other way in which they could be treated. He emphasised that the Poisons Board was not con-

cerned how substances were put to legitimate use. It was concerned only with the dangers to the Public from their unregulated sale or supply. "There are many cases of drugs having been used by the medical profession before they were considered by the Poisons Board, and inclusion in the Poisons Lists does not mean that they are prevented from being used for legitimate purposes." The change of nomenclature in the Poisons Rules, 1962, had arisen because the Minister of Agriculture had reorganised its field officer staff, with consequential elimination of the term "divisional pests officer." Mr. Woodhouse promised that points that had arisen during the debate would not pass unnoticed, whereupon Dr. Stross withdrew the motion.

Ten-year Plan

Asked by MR. K. ROBINSON when he expected to publish the local authorities' ten-year plan for the development of health and welfare services, MR. ENOCH POWELL (Minister of Health), in a written reply on February 1, stated "Later this session."

Sodium Fluoroacetate

CAPTAIN H. B. KERBY asked a number of questions about rodent control in ports and sewers using sodium fluoroacetate. MR. J. SCOTT-HOPKINS (Joint Parliamentary Secretary, Ministry of Agriculture, Fisheries and Food) in a written reply on January 30 stated that sodium fluoroacetate baits and fumigation were not simple alternatives. On ships where either method was possible there had been a trend towards the baits because they were cheaper and presented less risk. As a rodenticide sodium fluoroacetate was generally used in liquid form at a dilution of 1 in 400. Sale and distribution of the compound was restricted by the Poisons Rules. Detailed precautions to prevent contamination were set out in a Ministry of Agriculture leaflet "Use of Sodium Fluoroacetate as a Rodenticide." When used for the destruction of rats in sewers the recommended concentrations of sodium fluoroacetate and fluoroacetamide were 1 in 400 and 1 in 50 respectively. The maximum resulting concentration of fluoride on vegetation grown on the effluent was infinitesimally small and presented no cumulative danger to cattle or sheep. Such concentrations were very much less than those occurring naturally in soils and very much less than the smallest concentration of fluorides known to be toxic to fish.

Ancoloxin

MRS. J. S. BUTLER asked the Minister of Health what had been the decision of the Poisons Board "on his invitation to it to consider recommending the inclusion of ancoloxin" in Part B of the Fourth Schedule to the Poisons Rules. MR. C. M. WOODHOUSE (Joint Under-Secretary of State), in a written reply on February 4, said he understood the matter would be considered at a meeting later in February.

Pricing Bureaux Costs

In the House of Lords on February 5, LORD TAYLOR asked how many persons were employed in the costing of drugs prescribed by general practitioners, and at what approximate cost. LORD NEWTON (secretary, Ministry of Health) said that 1,440 staff at an annual salary cost of about £800,000 were engaged in England and Wales in pricing prescriptions for the purpose of calculating payments to chemists. The salary cost represented about 1 per cent. of the total cost of prescriptions dispensed. In addition, 109 staff at an annual salary cost of about £64,000, calculated periodically the cost of each general practitioner's prescribing. LORD TAYLOR pointed out that the number of persons engaged represented nearly 5 per cent. of the number of general practitioners engaged in prescribing the drugs and asked if a sampling procedure could be used. LORD NEWTON suggested the cost was the important thing "and 1 per cent. is not a very large proportion." BARONESS SUMMERSKILL wanted to know when the Government were "going to stop fiddling with this really scandalous increase in the price of drugs in this country and why did the Government not insist on doctors prescribing National Formulary drugs that cost less than proprietary preparations." LORD NEWTON assured LADY SUMMERSKILL that the Government were not being complacent but it was a difficult problem. LORD HAWK wanted "some investigation to see whether these people are really doing their job properly."

COMPANY NEWS

Last year's figures in parentheses.

GASCOIGNES (READING), LTD.—Group net profit for year ended August 31, 1962, was £173,729 (£165,781). Ordinary dividend, 15 per cent.

DOWTY GROUP, LTD. — Interim dividend is 4 per cent. (same). The overall trading of the group has remained good, although certain subsidiaries are finding markets more difficult, the board states.

JAYNOX, LTD.— An interim dividend of 5 per cent. is declared. The board says that sales have not shown the anticipated increase and costs have continued to rise so they consider it inadvisable to pay the 7½ per cent. interim which was forecast.

UNITED GLASS, LTD.—Sir James Helmore has been appointed chairman, succeeding Mr. William Reid who has, on medical advice, relinquished his seat on the board. Sir James was Permanent Secretary of the Ministry of Supply, 1953 to 1956.

THREE HANDS, LTD. — Profits during the fifty-three weeks ended May 2, 1962, were up 36 per cent. at £108,198, before taxation. The chairman (Mr. L. T. Edwards) states that an important feature of the accounts is the substantial investment in their new factory. He is confident the move will enable the company to make substantial savings in costs.

FISONS, LTD., announce the acquisition by their subsidiary, Medlock Holdings, Ltd., of the share capital of Industrial Cooling Equipment, Ltd., refrigeration engineers, Manchester. Fisons formed Medlock Holdings in July 1962 to control the operations of Gland Supplies, Ltd., and A. J. Ross (Endocrine), Ltd., companies dealing in animal substances with pharmaceutical uses, and operating deep-freeze and cold-storage plants.

FARBENFABRIKEN BAYER, AG. Leverkusen, Germany.—Turnover rose to about DM 4,000 millions in 1962 (from DM 3,260 millions). For the parent company, including fully-owned subsidiaries, turnover rose by just over 7 per cent., to DM 3,265 millions. Prices, which fell by about 4·5 per cent. in 1961 — partially influenced by the revaluation of the mark—fell by another 3 per cent. in 1962. This cut yields by an estimated DM 110 millions. At the same time, labour costs rose 11·5 per cent., or about DM 80 millions. Rationalisation and cuts in raw material prices enabled the company to make up for the higher costs and lower yields, but it will be their primary task during the current year to rationalise further, a letter to shareholders stated.

GLAXO GROUP, LTD.—Mr. A. E. Bide, B.Sc. (London), F.R.I.C., secretary of the Group, was recently appointed to the Board. Mr. Bide joined the staff of Glaxo Laboratories, Ltd., in 1940, became deputy secretary in 1956 and was appointed secretary three years later. He was appointed secretary of the Group when it was formed in January 1962.



UNITED STATES BORAX AND CHEMICAL CORPORATION. — Interim report for the three months ended December 31, 1962, issued on February 4, states that net income after Federal income taxes was $955,703 (20 cents per common share), after preferred divi- increased to $17,627,724, against (35 cents in the corresponding period of 1961). Sales for the first quarter increased to £17,627,724, against $16,028,280 in the comparable period of 1961. Sales and other operating results of Columbia Wax products are included in current report from November 1, 1962, when assets of Columbia Wax Co. were acquired. Earnings were adversely affected during first quarter by lower borax production rates. Results have also been unfavourably affected by lower potash prices. Production during second half of 1961 was lower than in the first half, due to strikes and to the planned reduction of stocks. A lower borax production rate than in 1961 will continue through the March quarter. Improved production rates should benefit profits in June and September quarters.

Voluntary Liquidation

SOUTHERN ECONOMIES, LTD., toilet pharmaceutical wholesalers. [R.O.] Portland Chambers, West Street, Fareham, Hants. Liquidators: R. P. Booth, 14 Holborn Viaduct, London, E.C.1; A. C. D. Miller, Portland Chambers, West Street, Fareham, Hants.

BUSINESS CHANGES

EASTOVER STORES ASSOCIATION, LTD., have opened a pharmacy at 5 Mountbatten House, Parkway, Bridgwater, Somerset.

DEXION, LTD., have moved their sales and administrative offices to Empire Way, Wembley Park, Middlesex (telephone: Wembley 1281).

Appointments

WILLIAM R. WARNER & CO., LTD., Eastleigh, Hants, have appointed Mr. J. H. Thompson their divisional manager, East Africa.

JOHNSON, MATTHEY & CO., LTD., 73 Hatton Garden, London, E.C.1.—Mr. R. G. Wheeler has been appointed publicity manager of the company.

AYRTON, SAUNDERS & CO., LTD., Dublin, have appointed Mr. Eamonn Foley, M.P.S.I., their manager. Mr. Foley has been deputy manager to the late Mr. P. J. Hooper for the past eighteen months.

RICHARD HUDNUT, LTD., Eastleigh, Hants, have appointed Mr. B. I. Thomson, general sales manager of their toiletries division and of Lambert Chemical Co., Ltd. Mr. R. A. Eggleton has been promoted sales trainer and Mr. J. L. Mortlock is area manager of the western division of the Lambert company.

PROPRIETARY PERFUMES, LTD., have appointed Dr. G. Riezebos their research manager in place of Dr. J. H. P. Tyman, who has left the company. Messrs. J. H. Greaves and K. W. Russell have joined in preparation for the company's expansion and move to Ashford, Kent, later in the year.

DEATHS

ANDERSON.—On January 21, Mr. John William Mair Anderson, M.P.S., 116 Avenue Parade, Muswell Hill, London, N.10. Mr. Anderson qualified in 1939.

BOURKE.—On January 29, Mr. John Bourke, M.P.S.I., Mylerstown, Carbury, co. Kildare, Eire. Mr. Bourke, who was eighty years old, served his apprenticeship in Edenderry, Portlaoise and Rathdowney. After qualifying in 1920, he set up in practice in Lucan and remained there until he retired three years ago. He was unmarried.

LOCKHART.—On January 22, Mr. Ernest David Lockhart, M.P.S., 7 Foxgrove Lane, Felixstowe, Suffolk. Mr. Lockhart qualified in 1912.

MARCHANT.—On January 25, Mr. David Marchant, 8 Moat Croft Road, Eastbourne, Sussex, aged ninety-three. Mr. Marchant qualified as a chemist and druggist in 1892. He was a former secretary of the Eastbourne Branch and Pharmacists' Association. He was also one of the original members of the local National Health Insurance Committee. He was in business in Eastbourne until his retirement just after the 1939-45 war.

MURRAY.—At Dumfries and Galloway Royal Infirmary on January 28, after a short illness, Mr. Norman A. Murray, M.P.S., formerly of 5 Glasgow Street, Dumfries, aged sixty-five. Mr. Murray qualified in 1924, and retired from business two years ago.

O'DRISCOLL.—On January 29, Dr. John J. O'Driscoll, The Square, Kildare. Dr. O'Driscoll qualified as a pharmacist in 1909, and carried on a successful retail pharmacy business in Kildare. One of Ireland's oldest pharmacists (he was aged eighty-three) he was a native of Skibbereen and was one of five brothers, all of whom were doctors. Dr. O'Driscoll was one of the first Peace Commissioners appointed on the foundation of the State.

PHILLIPS. — On February 3, Mr. Henry Gordon Phillips, M.P.S., Waterloo House, High Street, Tenby, Pembrokeshire. Mr. Phillips qualified in 1906.

REILLY. — On January 17, Mr. Henry Gibson Reilly, M.P.S., 9 Mains Drive, Dundee, Angus. Mr. Reilly qualified in 1922.

ROWLEY. — On January 19, Mr. Alfred Ernest Rowley, M.P.S., 27 Walton Road, Sidcup, Kent. Mr. Rowley qualified in 1926.

RUSSELL.—Suddenly, on February 1, Mr. Eardley Edward Russell, M.P.S., "Garthowen," Broadway, Letchworth, Herts. Mr. Russell qualified in July 1909; his wife, Mrs. M. V. Russell, died on January 3.

STERNBERG.—On January 15, Mr. Philip Sternberg, M.P.S., c/o Southernhay, Fortfield Terrace, Sidmouth, Devon. Mr. Sternberg qualified in 1913.

WOOLGROVE.—On January 16, Mr. Leslie Howard Woolgrove, F.P.S., 110 High Street, Kings Heath, Birmingham. Mr. Woolgrove qualified in 1939.

PERSONALITIES

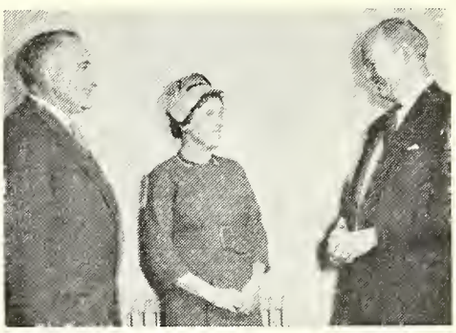
MR. IAN GREENFIELD, B.Sc. (Agric.), M.I.Biol., formerly chief agricultural adviser to F. W. Berk & Co., Ltd., has left the company to become managing director of the Cayford Technical Service (agricultural consultants) and Cayford Chemicals, Ltd.

MR. B. F. JONES (chief buyer for the William R. Warner group of companies) has been appointed chairman of the South of England branch of the Purchasing Officers' Association. Mr. Jones is a Yorkshireman with decided views on buyer-supplier liaison in industry, many of which have resulted in considerable benefit to his company for which he purchases over £1,000,000 worth of materials annually.

MR. C. H. SMITH, Pondtail Road, Horsham, who this month completed forty years with CIBA Laboratories, Ltd., has been promoted head of the company's sales division. In recognition of his long service with the company, he was presented with a gold cigarette case from the board, Sir Arthur Vere Harvey (chairman) making the presentation before the assembled staff.

MR. T. H. JONES, Hinckley, Leics, who has retired after twenty years as manager of the Hinckley branch of Boots, Ltd., was recently presented with a gold watch to mark his forty-four years' service with the company and was guest of honour at a dinner held in Leicester and given by the directors of the company. Mr. Jones began his career with the company at Aberdare in 1919, studied at Cardiff, and qualified in 1927. He held various posts before moving to Hinckley in 1943, and for the past twelve years has been employee representative on the Leicestershire and Rutland Pharmaceutical Committee.

MR. H. T. DOWNER is retiring after fifty-one years with S. Maw, Son & Sons, Ltd., Aldersgate House, New Barnet, Herts. For the past thirty years



Mr. and Mrs. Downer with Mr. Denys Maw after a luncheon celebrating Mr. Downer's fifty-one years of service with the company.

he has been representing the company, first in the North of England and more recently in South Wales and neighbouring counties. His promotion to senior salesman came in 1961, "a fitting reward," say Messrs. Maw, "for his years of loyal, hard-working service to the company."

MR. G. E. YATES, M.A., who has been appointed to the newly created post of director of the Association of the British Pharmaceutical Industry, entered the Civil Service in 1931 and served in several Government Departments including the Ministry of Health. Later he acted as principal private secretary to two Ministers of Health (Mr. Malcolm MacDonald and the late Mr. Ernest Brown). He was a member of the United Kingdom delegations to the United Nations and other international conferences at the end of the 1939–45 war and, as a delegate to the International Health Conference in New York in 1946, signed the treaty establishing the World Health Organisation. He transferred to the secretariat of the United Nations in 1946; served as secretary of the United Nations Economic and Social Council, and later as senior director in the Department of Economics and Social Affairs. He was executive secretary of many United Nations conferences, including the special commission of the United Nations Economic and Social Council which set up the United Nations expanded programme of technical assistance in 1949 in Geneva, and of the plenipotentiary conference for the Single Convention on Narcotic Drugs, New York, 1961. He has taken part in projects of the United Nations and in the specialised international organisations on technical assistance to under-developed countries in many parts of the world.

TRADE NOTES

Discontinued.—John Wyeth & Brother, Ltd., Huntercombe Lane South, Taplow, Berks, are discontinuing the following products when present stocks are exhausted:—Asmadyn tablets; Lipect cough elixir; and Wyamin capsules.

A 250-mgm. Size. — Parke, Davis & Co., Staines Road, Hounslow, Middlesex, now offer a 250-mgm. rubber-capped vial of Chloromycetin succinate in addition to the existing 1-gm. pack. Chloromycetin succinate 250 mgm. is especially designed for paediatric use, where it facilitates the preparation of suitable dosage regimens.

Reduced Price Offer.—During January and February County Laboratories, Ltd., Great West Road, Brentford, Middlesex, are offering their Silvikrin liquid shampoo at threepence off the standard and fivepence off the "economy" sizes. Each case of standard-size bottles contains a 6-bottle merchandising unit for display on counters.

Distribution Area Extended.—Whitecroft (Lydney), Ltd., Whitecroft, Lydney, Glos, are extending to the London, Southern and Anglia television areas the distribution of Salvelox plaster, which they launched in the T.W.W. and Westward television areas in 1962 (see *C. & D.*, November 10, 1962, p. 513). Individually wrapped, Salvelox plasters are designed to adhere firmly even in water, are "thin and flexible as skin itself" and have a unique antiseptic "wound friendly pad" with layer of polyester fabric that prevents the pad from sticking to the wound when Salvelox is removed. There are packs of one and of three assorted sizes. Point-of-sale display material is available.



Empty Capsule Prices.—The prices of empty gelatin capsules from Parke, Davis & Co., Staines Road, Hounslow, Middlesex, are: Size 000, 120s.; size 00, 101s. per doz. boxes of 100 [corrected note].

Plans for Wider Distribution. — In order to obtain a wider distribution for their Playtex "Living" gloves, Playtex, Ltd., 24 Bruton Street, London, W.1, have arranged for their distribution in the United Kingdom to be handled by Smith & Nephew, Ltd., Bessemer Road, Welwyn Garden City, Herts. Messrs. Smith & Nephew will handle the U.K. distribution of Playtex baby products and swim caps.



Messrs. Brian Jones (sales promotion manager), right, and Brian Holloway (a marketing manager of Lilia-White Sales, Ltd.) discuss display material for Playtex guarantee offer.

Bonus Offers

HELENE CURTIS, LTD., 6 Albemarle Street, London, W.1. Go Gay hair spray. 5 per cent. extra on order for 1 doz., 10 per cent. on order for 3 doz. Until February 28.

LUSTY'S NATURAL PRODUCTS CO., LTD., Westcliff-on-Sea, Essex. Showcard display bonus equivalent to 11s. 3d. on every £3, carriage paid, order for all or any of the company's preparations. Until February 28.

MANUFACTURERS' ACTIVITIES

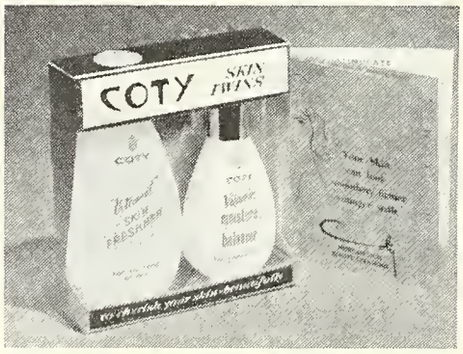
Airlift to Overcome Dock Strike.—P. Leiner & Sons, Ltd., Treforest, South Wales, chartered special aircraft to beat the American dock strike and fulfil important United States contracts for pharmaceutical gelatins secured in 1962 against intense competition from other manufacturers.

Sales Conference.—Theme of a sales conference in London recently of Shulton (Great Britain), Ltd., 100 Brompton Road, London, S.W.1, was "A Partnership of Enterprise." The company's management team at the conference was headed by the managing director (Mr. Geoffrey S. Sladden).



"MOST BEAUTIFUL TEENAGER": Winner in a "Teen Queen" contest sponsored by Vick International, Ltd., 10 New Burlington Street, London, W.1, was nineteen-year-old secretary Miss Ann Fuller, Ipswich. As part of her prize she is given a week's holiday in Madrid, where she will have an opportunity to appear in the film "The Fall Of The Roman Empire." She also won a cash prize of £250. Also in the picture are the runners up.

Prize for a Shaver.—First prize in a Schick shaving contest, grand final, was presented at the Royal Albert Hall, London, recently, to Mr. Brian Busby by musical-hall artist Charlie Naughton. Brian, a printer's assistant with the *Daily Mirror*, was chosen as "Mr. Smooth" from hundreds of entrants in weekly heats at Pontin's holiday camps by a panel of lady judges. The ladies, blindfolded, passed their hands over the faces of six finalists who had shaved with Schick Golden 500 injector razors. Prize is a free holiday at Pontin's first Continental holiday resort at Sardinia.





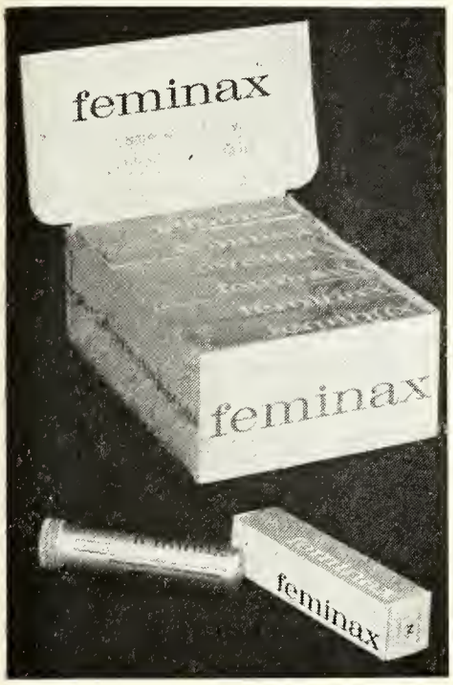




"SPECIAL OFFER" PACKS AND DISPLAYS: Left to right, Combined "skin twins" pack of vitamin moisture balancer with either Vitamel skin "freshener" or instant cleanser offered by Coty (England), Ltd., 3 Stratford Place, London, W.1, at special reduced price for a period of several weeks. Angel Face powder eye shadow carded with free double-ended black and dark brown eye pencil on board 4½ x 5½ in. Display packer holds twelve cards. Manufacturers are Chesebrough-Pond's, Ltd., Victoria Road, London, N.W.10. Six-bottle merchandising display unit in black and red for reduced price offer of standard-size Silvikrin shampoo of County Laboratories, Ltd., Great West Road, Brentford, Middlesex. For the larger size ("5d. off") there is available a crowner in black, yellow and red. Pack offering a free "tease 'n curl" comb with Go Gay hair spray of Helene Curtis, Ltd., 6 Albemarle Street, London, W.1. There are three variants—for dry (pink pack), normal (blue pack) or oily hair (yellow pack).

NEW PRODUCTS AND PACKS

Period-pain Reliever.—Nicholas Products, Ltd., Slough, Bucks, are launching a new tablet, Feminax, for the relief of dysmenorrhœa. The tablet contains paracetamol, salicylamide, caffeine, codeine phosphate and hyoscine hydrobromide, the hyoscine having



been included because of its value as an anti-spasmodic (Feminax is claimed the only period-pain reliever containing it). The product, which is being sold to the public through pharmacies only, is being promoted by " the largest-ever campaign " on behalf of such a product. The pack is a cartoned aluminium tube of twelve tablets, sent out in display outer of twelve cartons.

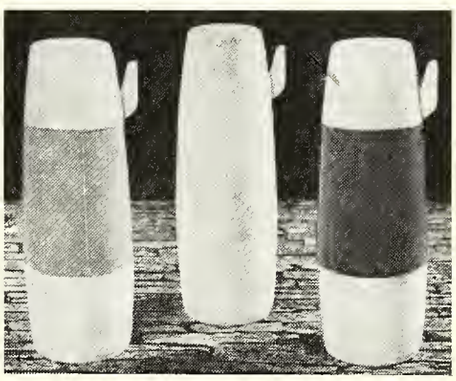
New Lightweight Bottle.—Paines & Byrne, Ltd., Perivale, Greenford, Middlesex, have adopted a new lightweight glass bottle for their Hipsy rose-hip syrup. The bottle is fitted with a tamper proof cap with tear-off tab which, when removed, leaves an airtight hinged snap cap, " thus ensuring that the syrup remains in perfect condition throughout the period of use." The product is available in 8-oz. size only.

Fluocinolone Formulations. — The pharmaceuticals division of Imperial Chemical Industries, Ltd., Fulshaw Hall, Wilmslow, Ches, have produced new formulations of fluocinolone acetonide containing, under the titles Synandone cream and ointment, 0·01 per cent. of fluocinolone acetonide and, under the titles Synandone-N cream and ointment, corresponding products containing in addition 0·5 per cent. of neomycin sulphate. The pack of each is a 15-gm. tube.

Two New " Ethicals."—Whaley Pharmaceuticals (H. Whaley (Chemists), Ltd.), 7 Sheep Street, Rugby, Warwicks, have launched two new pharmaceutical specialities: Bronchoguasin cough mixture, a stimulant mixture for use in tracheitis and bronchitis and containing guaiphenesin expectorant with potassium iodide, lobelia and volatile oils; and Sulphamine eye drops, containing 7½ per cent. of para-sulphonamidobenzylamine propionate, the neutral sulphonamide making the product suitable for use in active conjunctivitis and other eye infections and injuries. The advantage is claimed for the compound that it is effective against many sulphonamide-resistant strains and in the presence of pus. Bronchoguasin is issued in 4-oz. bottle, Sulphamine eye drops in a ½-oz. plastic dropper bottle.

Nasal Spray Without Vasoconstrictor. — Berk Pharmaceuticals, 8 Baker Street, London, W.1, have introduced a nasal spray containing Thiodril (S-carboxy methyl cysteine) for the treatment of chronic and subacute infections of the upper respiratory tract, particularly chronic rhinitis and chronic post-nasal catarrh. Thiodril nasal spray contains no vasoconstrictor and is not sympathomimetic. The compound is understood to have been shown to exert a regenerative action on damaged mucous membrane tissue, so that its regular use assists the healing of damaged surfaces. The carton contains a squeeze bottle with two sealed ampoules each of 10 mils of 2 per cent. S-carboxy methyl cysteine. In use, the contents of one ampoule are transferred to the squeeze bottle when required for use, retaining full activity for several weeks thereafter. A refill is supplied for subsequent use.

All-plastic Flask.—The new Thermos No. 21 vacuum flask of Thermos, Ltd., Ongar Road, Brentwood, Essex, has a combined shoulder and pourer lip,



double-seal, leak-proof, screw - on stopper and moulded-on cup handle. It comes in shades of blue, red and beige and has a capacity of 16 fl. oz.

Curler for " Casual " Waves.—The Toni Co., Trevor House, 100 Brompton Road, London, S.W.1, have launched a new curler, the Sofspin, designed " to give a more casual wave in keeping with the current style, for more natural-looking hair." The Sofspin has a central winder of four members giving a looser, more gently undulating but lasting wave without, it is claimed, the risk of " frizz." The curlers are recommended for users with " easy-to-wave " or bleached hair, but not for those whose hair is hard to wave (and who normally use " Super " lotion). The curler is in yellow polystyrene, and has a strong but simple clip. New packs of midget and regular spin curlers have also been introduced.

EXPANSION PLANS

PFIZER, LTD., Sandwich, Kent, and Aeropreen, Ltd., Plantation House, Mincing Lane, London, E.C.3, have made an arrangement whereby Pfizer associated companies abroad are licensed to use Aeropreen processes and technology in the manufacture of polyurethane foam in non-rigid form in Western Europe and certain other countries in the world. The agreement does not affect the business of Aeropreen, Ltd., in the United Kingdom. Aeropreen remains a wholly owned subsidiary within the Lewis & Peat group.

IN order to increase working space, provide a demonstration theatre, and to improve co-ordination within departments, a £270,000 extension to the Unilever Research Laboratory at Port Sunlight is to be built shortly on a site now being prepared. The laboratory is one of three large research centres of Unilever in the United Kingdom, now in the course of being augmented by a fourth at Welwyn. Another 27,000 sq. ft. will be provided by the new building at Port Sunlight; construction is due to start in January. It is envisaged that the scheme will take eighteen months to complete. Meanwhile Professor C. E. H. Bawn (professor of inorganic and physical chemistry at the University of Liverpool) opened a new works laboratory for the company at Port Sunlight on November 21, 1962. Construction of the laboratory at a cost of over £167,000, represents the second phase of an extensive programme of factory reorganisation which is designed to give increased efficiency of production, in conjunction with the operational flexibility required to meet the changing needs of the highly competitive detergent industry. The building consists essentially of an undivided main laboratory in which the bulk of the analytical work will be performed, and a group of ancillary laboratories having specialised functions. A feature of the main laboratory is the barrel-vault concrete-shell roof, pierced by circular, domed-glass skylights.



NATIONAL AWARD WINNER: In his first year with Charnwood Laboratories division of Vantorex, Ltd., Loughborough, Leics, Fred Humphries, Clapham, Bedfords, won the company's " Salesman of the Year " title during 1962, proving himself the best man in the sales force by his efforts in Bedfordshire, Northamptonshire and Leicestershire. For his efforts he received a cash prize, silver cup, pair of gold cuff links, and Spring trip to Paris with his wife.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

Whitehall Prescribers

SIR,—I feel that the public should be made aware of the fact that the position of their medical advisers is being usurped by officials in the National Health Service. Even if the standard preparations were superior to the proprietary, I would still prefer that my medico precribed for me, rather than some official in the Whitehall area.

HUGH LATTIMER,
Epsom, Surrey

In Search of a Metric Measure

SIR,—I may be wrong, but it seems to me extraordinary that not one of four chemists' sundriesmen who list measures of various types were able to supply me with a 500-mil cylindrical measure. One of them, in fact, had no metric measures at all. The use of the metric system is gradually increasing, and even the 1946 edition of "Pharmaceutical Formulas" includes many recipes needing metric weights and measures.

G. T. CULME,
Kingston-on-Thames

Viprynium Embonate

SIR, — Contrary to the statements made in the comprehensive review of parasitic worm diseases by Mr. W. A. Littlejohns (*C. & D.*, January 26, 1963, p. 95) and in the Extra Pharmacopœia Supplement, 1961 (p. 251), there are no known clinical contraindications to the use of Vanquin (viprynium embonate) in the treatment of threadworm infestation.[1,2] It has been used in patients with concomitant heart, liver, kidney and other diverse diseases, including allergic syndromes, and in no case has any adverse effect on the primary pathology been seen.[1,2] Furthermore, intestinal irritation at doses as high as 198 mgm./kilo/ day for 31 days is so minimal that this is no problem with the recommended therapeutic dose of 5 mgm./kilo bodyweight in a single dose.[3] It appears that this misunderstanding has been caused by our examination of two salts of viprynium—the chloride and the embonate. Initial studies with the chloride at high chronic dose levels in animals showed mild to moderate irritation of the small intestine and a mild degree of liver and kidney damage.[4] Although the chloride, which is not marketed, was clinically non-toxic in humans and had a large margin of safety,[1,5,6] animal research showed that the embonate salt (Vanquin) was less than one-tenth as toxic and could be tolerated at very high dosage for a long period of time.[1,7] This was confirmed when a child swallowed 20 times the therapeutic dose and showed no toxic effects.[1] This absence of systemic toxicity is due to the lack of absorption of Vanquin from the gastrointestinal tract. The contraindications mentioned in the Extra Pharmacopœia Supplement, 1961, therefore undoubtedly refer to the chloride, since they are taken from the paper by Royer[5] quoted in the Extra Pharmacopœia, Vol. I, twenty-fourth edition (p. 1386), where only the chloride salt is described. Extensive clinical trials with a single dose of Vanquin disproved the theory advanced by Mr. Littlejohns that a "seven-day course has the possible advantage of eliminating both worms already developed at the start of treatment and those which mature during the week." Comparative trials have demonstrated the superiority of Vanquin in a single dose over the piperazine compounds and dithiazanine iodide in multiple doses.[8,9,10] Recently it was stated that Vanquin is the treatment of choice for threadworms[1,11] and represents a great improvement on the previously used oxyuricides.[2] This is because it produces nearly 100 per cent. cure rate with a single dose.[1,2,8,9,10 and others] The necessity for only a single dose is clearly a great advantage in threadworm infestation, where it is important to treat carriers and apply hygienic measures,[11] and its popularity over a multi-dose schedule is quite noticeable among the mothers of children being treated.[9] The method is also cheap in comparison with other methods.[11] Vanquin is virtually non-toxic[1,2] and the only side effects reported have been transient nausea, vomiting and mild diarrhœa associated mainly with large doses of the suspension in a few older children and adults.[1,2] It is considered that those effects are related to the quantity of the suspension administered rather than to a specific effect of the drug. Side effects do not occur with the larger doses of the tablets[1,2] which should be used in older children and adults where relatively large doses of the suspension would be required.

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11. *Prescribers' Journal*, 1962. **1.** 82.

J. R. ARCHER,
Manager of medical services,
PARKE, DAVIS & CO.,
Staines Road, Hounslow.

[*Mr. Littlejohns states:*—No reference was made in the article to any contraindications of viprynium embonate, though they are mentioned in the 1961 Supplement to the Extra Pharmacopœia. Mr. Archer's criticisms on that score, therefore, should be laid in other quarters. Whether a one-day course of treatment is to be preferred to a seven-day course will depend on the hygienic measures carried out by the patient. In the absence of such measures, eggs might be ingested even while the one-dose drug was working.]

Irish Pharmacists Please Help

SIR,—May I, through your valued columns, request the co-operation of my Irish colleagues with a pharmaceutical problem. I am investigating dispensing practice from the standpoint of productivity, and am seeking information under the following headings:—

(a) Normal output of prescriptions per hour (or per day in the case of a full-time dispenser);
(b) Retail value of (a) without dispensing fees;
(c) Value of (a) at cost, including containers;
(d) Prescription sales expressed as a percentage of total weekly sales, cash and charge, for the whole shop.

All communications will be treated with strictest confidence.

A. A. P. TOHER, M.P.S.I.,
SLIGO DRUG CO., LTD.,
Sligo, Eire

A Distinguishing Sign for Pharmacies

SIR,—After reading Xrayser's Topical Reflections last week (*C. & D.*, February 2, p. 109) regarding a national sign for pharmacists, I would suggest we copy the French and have the well-known cross (white and green) on display. Although Common Market negotiations have failed for the time being, I think and hope, indeed, that eventually we can raise pharmacy to the levels enjoyed by our European colleagues. The sign would provide for uniformity, and give confidence to the increasing number of foreign visitors to our shores.

JOHN NICHOLSON,
Shaldon, South Devon



"YOU WERE ABSOLUTELY RIGHT, DARLING. THEY WERE TOADSTOOLS!"

The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

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TELEGRAMS: "CHEMICUS ESTRAND, LONDON"

Incentives by Taxation

WHAT gives special importance, and has brought widespread publicity, to the views of the chairman of Imperial Chemical Industries, Ltd. (Mr. Paul Chambers), on taxation policy is that, in the words of the *Guardian*, "he ought to know because, in his former incarnation as a commissioner of Inland Revenue he must have discovered what governs the timing of fiscal changes." The arguments of Mr. Chambers centre round three considerations, namely that direct taxation should be simple so that every taxpayer has a clear picture of where he stands, that they should be less steeply graded so that nobody is led to believe that earning income or profits beyond a modest point is not worth while, and that economic policy should be on a long-term basis to secure steady advance, avoiding first-aid expedients of the "stop-start" kind. Mr. Chambers points out that the economic life of the country is at a crisis in which "so far pigeon-holed" reforms in taxation recommended by the Royal Commission on Taxation could be most opportunely carried out, and that with the number of unemployed increasing towards the million mark, taxation reliefs should be easier to absorb than on almost any occasion since the war.

Some detailed suggestions were made by Mr. Chambers as to the sort of reforms that would achieve his objectives. They include simplifying code allowances, taxing all incomes on a simple current income basis ("as in almost every other country"), getting rid of odds and ends of taxation and reliefs that add to complications and administrative costs without achieving greater overall fairness, and removing burdens that differentiate against industry and thus discourage enterprise. Doubtless they were put forward as examples of a much longer list he could have provided, or which would suggest themselves to the authorities, and doubtless, too, they will have to be the subject of elaboration by the Inland Revenue and debate in Parliament. We are certainly not enamoured—for reasons we have enlarged upon in the past and need not reiterate at this juncture—of the suggestions in *The Times* first leader on February 5 that "the time . . . may be approaching when Britain might consider switching from the present narrowly based purchase tax to a more broadly based value-added tax on the Continental pattern."

With the general and urgent need of finding ways, of which reform of taxation may well be a principal method, of encouraging enterprise and increasing industry there can be little disagreement. The psychological and material setbacks of refusal of entry into the Common Market must be overcome, for if they are not a situation already difficult may worsen at an accelerating pace. It is not without significance that the European Economic Community Commission has announced an estimated gross national product increase of 4·5 per cent. in 1963 (as in 1962). In Britain's National Productivity Year her own gross national product increase should match or surpass that if Britons are to face the future with a proper confidence.

A Vital Rôle in Research

THE economic progress of a modern nation can be assessed by its technological achievements, which in turn are often reflected in the accumulation of accepted patent specifications. It is therefore reasonable to interpret the success of the National Research Development Corporation in that way rather than by reference to financial returns. Nevertheless, the Report and Statement of Accounts of the National Research Development Corporation 1961-62 (H.M.Stationery Office, price 2s.3d.) record that, over the thirteen years of the Corporation's life, it has spent £7,730,956, of which sum a trifle over £5 millions is represented by Board of Trade advances and over £2½ millions by earnings. The Corporation holds rights in 1,064 United Kingdom and in 2,491 overseas patents and patent applications. During the period under review a record sum of over £1 million was spent by the Corporation in backing British inventors. During that time forty-eight licence agreements were made with United Kingdom and overseas companies, and royalty receipts increased to £279,435, against £259,902 in 1961.

The public may tend to associate the Corporation primarily with the Hovercraft development, but it is worth pointing out that a number of projects in the pharmaceutical field are receiving the Corporation's encouragement. The Medical Research Council and the Middlesex Hospital School are collaborating in investigations involving the large-scale incubation of adrenaline tissue and the purification, for reference and experimental purposes, of several adrenal steroids including aldosterone. From time to time reports have been issued concerning the cephalosporin group of antibiotics especially concerning cephalosporin C, which is resistant to penicillinase. Extensive and intensive development work has been undertaken by the Corporation's licensees, both in the U.K. and overseas, and it is likely that commercial preparations will become available in the none-too-distant future. A number of members of the pharmaceutical industry are collaborating with the Medical Research Council to secure the exploitation of the research findings concerning the culture of the common cold viruses, and arrangements provide for the Corporation and the companies to be shareholders in a private company that has been set up to handle the commercial aspect of the programme. The Corporation has continued to support work aimed at the purification and characterisation of a substance, contained in the pituitary bodies of animals, which appears to be intimately concerned with the utilisation of fat in the body. That process is of fundamental interest, and chemical and biological work has continued in order to determine the commercial utility of the substance.

The Corporation's report also refers to work that is being carried out on interferon, which again is proceeding on the basis of arrangements arrived at between

the Corporation and members of the pharmaceutical industry. Investigations in the physiology department of Sheffield University have shown that menstrual fluid contains what are thought to be new compounds, with properties that may make them of interest to medicine, and the Corporation continues to give financial support to programmes of work at Sheffield and Glasgow Universities aimed at developing the work. Trachoma vaccine is another example of the collaboration between the pharmaceutical industry, the Medical Research Council and the Corporation.

The Corporation thus appears to be successfully carrying out its function to develop and exploit inventions resulting from research carried out in many spheres of activity. It has, moreover, evolved a method of operation that encourages the establishment of industries and processes by assisting them to "stand on their own feet rather than relying on Government subsidies."

The Corporation's income, derived from its exploitation activities, is based on probably the largest and technically the most diverse patent holding in the world. It has accrued an enormous experience in the exploitation of patents, and has acquired—as is not always appreciated—"a great deal of experience in civil development work, including the placement of development contacts with the industry."

There can surely be no doubt of the useful rôle the Corporation plays in the nation's affairs. It is also satisfactory to note that, in so many of the Corporation's activities, the much maligned pharmaceutical industry is also a large contributor.

Onward from Galen

A CURRENT CAUSERIE

THE recipe in the customer's handwriting often raises a smile, but one that came my way the other day was written correctly enough. It was for "Citrate of iron and quinine, 1 oz." What brought the smile was on the other side, for it was written on the back of a letter. It said: "Dear Sir, hope the birds arrive safe and please you. Buff hens are sisters, the cock could be used with them. . . . Their parents are good doers and should do well for you with luck." They did well enough for me: they made my day!

★

THE average salesman in England, it seems, spends 1 hour and 37 minutes in each working day actually selling his firm's products; the rest of the time is taken up with travelling, trying to arrange interviews with buyers, and "refreshments." That is one of the conclusions of a London firm of marketing advisers, which carried out a series of surveys over the past nine months. The immediate reaction to that information might be to urge salesmen to spend more time in front of customers. But as the managing director of the firm that carried out the survey says: "In many cases this is neither desirable nor practicable. A more profitable objective is to ensure that whatever time is spent with a prospective buyer is utilised to the full. There are many techniques for achieving this and it is the job of sales management to exploit them in every possible way."

BENEVOLENT PROPAGANDA: "Advertising does not take away people's judgment from them; it stimulates their critical faculties and helps them exercise their judgment."—Mr. L. B. Cort, addressing the European Association of Advertising Agencies conference in London on December 1.

ANY BUSINESS QUESTIONS?

I make an annual maintenanee elaim against the ineome tax assessment on my property. This year the gutters have sustained eonsiderable damage from the weight of snow. I have made an insuranee claim whieh should eover the eost. Can I inelude the cost in my elaim for relief?

ALTHOUGH you may have recovered the cost of the damage from your insurance company, you are not precluded from including the cost of the repairs in your property maintenance claim. The legislation provides for no restriction in respect of money received as a result of a successful insurance claim, and although some inspectors of taxes attempt to challenge that, their head office can be depended upon to put them right.

About a year ago I purehased a small pharmaey, but my predecessor had no audited aeeounts to show me because he had been in business for only a little more than one year, and no balanee sheet had been prepared. He told me that apart from Health Serviee preseriptions his sales were averaging almost twiee as much as has been the ease sinee I have been in possession of the business. Results now are almost as good as my predeeessor pretended they were in his day, but I am convineed that this is entirely due to my own efforts, and I am sure I was misled. Is there anything I can do about this, since I am sure I paid far more than the business was worth at that time, entirely as a result of my predeeessors' statements?

WHILE it is useless to cry over spilt milk, no one should invest money in a business without having an accountant conduct a proper investigation. The ancient legal maxim "caveat emptor" (let the buyer beware) did not become established without very sound reasons, and courts will not lightly disregard it. Your only remedy after so long would appear to lie in an action for damages for misrepresentation; but to succeed you would require to show that the vendor made misleading statements about his business results, not believing them to be true, or at least recklesssly, not caring whether they were true or false. To discharge that burden of proof now would, it is thought, be exceedingly difficult. It is therefore very doubtful whether any action could succeed.

As a preferenee shareholder of a eompany owning a small pharmaey, what are my rights, please?

THE rights attaching the various classes of share are usually set out in the articles of association, though in some cases they are to be found in the memorandum. Usually a preference share confers the right to payment of a dividend at a fixed rate, though unless this is specified, the dividend is not cumulative. It is usually the case also, that a preference share confers the right to prepayment of capital at par in a winding up, in priority to other classes of share, but this must be stated in the items of issue, since there is no special right to this in company law. Normally, such shares carry no rights to receive copies of accounts or to attend and speak at meetings unless the dividends are in arrears, but this too will depend upon the rights as defined in the memorandum and articles.

SALESMANSHIP POINTS

OFFER AN ALTERNATIVE

By Gladys Burlton

A SALESMAN should carry his stock in his head. Many retailers and their assistants, through lack of that mental picture, are stumped when asked for something not in stock. All they can say is, "I'm sorry. We don't keep that." The customer is disappointed and leaves with a poor opinion of the shop. That is all wrong. An inquiry should be treated as an opportunity. The aim should be to discover the customer's object and try to meet it. If she cannot get what she asked for, she may still be receptive to ideas. Don't, of course, show her anything silly, that will irritate instead of helping her. But she will be pleased in the same degree if you find her something suitable.

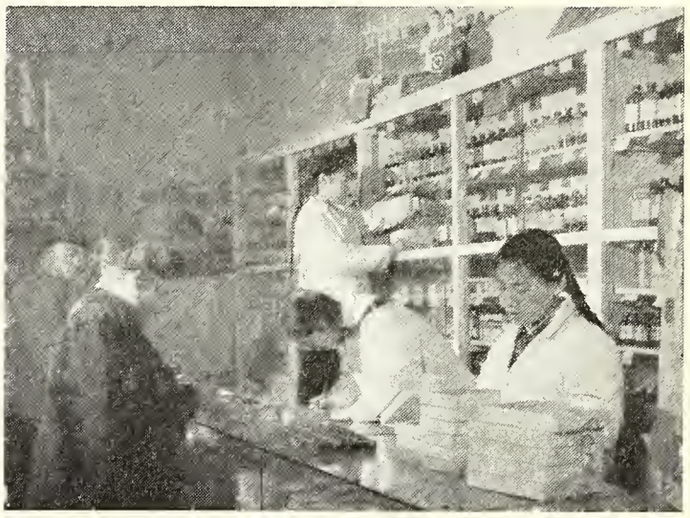
BUYING MEDICINES IN CHINA

Western and Eastern systems side by side

HUANG LUNG

IF you want to buy medicine in a Chinese city, two types of shops cater for your needs. One, called a "Western drug store," stocks all the varieties of drugs and proprietary medicines found in pharmacies all over the world. The other is the "Chinese medicine shop" with a myriad of tiny drawers full of dried herbs, shelves displaying rhino horns, tiger-bone wine, deer antlers, pills and herbal preparations that have been used by the Chinese for medicines and elixirs since the dawn of history. The "Western store" is so called because the drugs sold formerly came from the West. Though most of the drugs on sale today are made in China, the name "Western" continues to be used by the public to distinguish the shop from the kind dealing in medicinal herbs.

Thirteen years ago the Chinese market was glutted with imported drugs including thousands of branded medicines from Japan, Germany, the United States, Great Britain and other industrialised nations. It was hard to find a bottle of medicine labelled in Chinese, and some people dubbed the pharmacies "foreign shops."



"WESTERN" STYLE: Inside a Chinese "Western" pharmacy; so called because the medicines (not the assistants) formerly came from the West.

Production Within the Country

China's pharmaceutical industry todays turns out most of the drugs and household medicines the public needs. Chinese-made products in the health field now range from most of the antibiotics and sulphonamide drugs to contraceptives, stethoscopes and thermometers.

Most of the supplies come from a big State-run wholesale organisation in Peking, which has connections with pharmaceutical works all over the country. Drugs are tested and certified by the Health Ministry before they are put on the market.

Retail prices for drugs have been coming down steadily. Antibiotics having fallen by one-half to two-thirds since 1955, according to product. A unified schedule of prices is observed in all pharmacies, large or small.

An increasing volume of packaged medicines prepared from herbs is appearing in the "Chinese medicine shops." In recent years the properties of many time-honoured medicinal herbs have been scientifically studied, and extracts from them are now made into tablet, powder or liquid medicines. Neverthcless herbs in their raw or extracted form are still popular in China, many people believing that they are milder and have fewer side effects. All the pharmacies in Peking are State-owned or joint State-private enterprises. Former proprietors work in the State-privately owned shops, some as managers. They receive a monthly wage plus an annual interest of 5 per cent. on their shares, representing the value of the assets when the shops became joint enterprises in 1956. Like all government workers, the pharmacy staffs are entitled to free medical care and other benefits. Members of families pay half-cost of medical treatment.

SCOTTISH DEPARTMENT

January meeting of Executive

THE RESIDENT SECRETARY of the Scottish Department of the Pharmaceutical Society (Dr. G. H. Macmorran) reported at a meeting on January 16 that he would be receiving from the Scottish Home and Health Department copies of the model drug testing scheme prepared by the Department, and it was agreed that a special meeting of the Executive to consider it should be held on March 13. The resident secretary also reported that he had been invited to become a member of a subcommittee appointed by the Standing Committee to consider the model scheme.

Dr. Macmorran said he had received from the Under-Secretary of State for Scotland (Mr. R. C. Brooman-White) a letter apologising for a reply ("The object of this operation is to ensure that what is prescribed is properly dispensed") to a supplementary question in Parliament about the drug testing scheme (see *C. & D.*, January 5, p. 2).

MR. J. B. GROSSET reported that the Council of the Pharmaceutical Society, in reply to a recent letter from the Central N.H.S. (Chemist Contractors) Committee, had stated that the Council supported the views of the Joint Formulary Committee, "but if a prescriber used other methods to indicate his intention it should not be ignored." That indicated a broader view than in the Joint Committee's statement on labelling.

It was reported that Mr. T. W. Buchanan, Leven, had been awarded the M.B.E., and Professor H. B. Nisbet (principal, Heriot-Watt College, Edinburgh), the C.B.E. The resident secretary was asked to pass them the Executive's congratulations.

Reports were received on the Christmas Qualifying examination (old regulations) and Qualifying examination, Part III. The Executive noted the apparently better results obtained in the examinations under the new regulations, though it was appreciated that a final assessment could not yet be made. An analysis of college enrolments was noted. It was considered difficult to decide, without a man-power survey, whether the numbers were sufficient for future needs. It was suggested that an attempt should be made to estimate the percentage of students that had completed the course successfully.

The Executive agreed to submit the name of Mr. G. R. Milne for appointment to the pharmaceutical advisory committee of the Royal College of Science and Technology, Glasgow.

Present at the meeting were Messrs. R. Anderson, A. Cowan, J. W. Goodchild, J. B. Grosset, F. Hepburn, S. G. Home, A. W. Keith, C. W. Macfarlane, J. Maclean, M. S. Maconochie, J. Macpherson, R. S. Morrison, A. Officer, W. A. Park, A. Roxburgh and W. S. Tait. Apologies for inability to attend were received from Messrs. J. D. Mair and H. T. Thomas. Mr. W. C. D. Bain was in the chair, and Dr. G. H. Macmorran and Mr. R. Mackay were in attendance. Also present were the president of the Pharmaceutical Society (Miss M. A. Burr) and Dr. W. Lane-Petter (a member of Council) who were welcomed by Mr. Bain on behalf of the Executive.

Edinburgh Branch "At Home"

THE Edinburgh and South-eastern Scottish Branch of the Pharmaceutical Society, in conjunction with the 1964 British Pharmaceutical Conference meeting ladies' committee, held an "at home" in Edinburgh on January 30, Mr. J. H. Henderson (Branch chairman) presiding. The 130 members and friends present heard recitations from MRS. J. B. GROSSET and saw the film "The Changing Face of Britain." MR. N. HERDMAN expressed the company's appreciation of Mrs. Grosset's performance and thanked the ladies' committee for providing the buffet supper.

Medicaments in Pressurised "Dispensers"

PHARMACEUTICAL ASPECTS OF THE "AEROSOL REVOLUTION"

AT the Pharmaceutical Society's House in London on January 16, MR. A. HERZKA, B.Sc., F.R.I.C. (a consultant on pressurised packaging), delivered an address on "Medicaments in Pressurised Dispensers" which he illustrated with slides and a film. Professor E. Shotton was in the chair.

The speaker began by saying that of all the new packaging methods that had found acceptance in recent years, pressurised or aerosol packaging was possibly the most revolutionary. At the same time it had been used for a great variety of products. United States figures based on annual surveys by the Chemical Specialties Manufacturers' Association, were divided into product groups, from which it was easy to compare the growth of pressurised pharmaceuticals in the U.S. during the past five years (see table).

YEAR	GLASS CONTAINERS all sizes	METAL CONTAINERS			TOTAL
		16 oz. but over 12 oz.	12 oz. but over 6 oz.	6 oz. and less	
1957	967,673	*	347,610	4,483,786	5,799,069
1958	969,710	*	528,424	5,631,474	7,129,608
1959	3,329,752	*	426,829	6,279,731	10,036,312
1960	2,524,668	87,618	615,727	8,548,823	11,776,836
1961	2,781,479	436,774	1,035,971	13,783,559	18,037,783

* figures not available.

Although the development of pressurised packs in Britain did not always follow the American pattern, that gave a good indication of the growth potential. Approximately 350,000 metal containers (mostly 6-oz. or less) were used for pressurised medicaments in the United Kingdom during 1961, and 1·38 million pharmaceutical pressurised packs were stated to have been sold in Germany in that year.

Mr. Herzka believed that there were at least two, albeit contradictory, reasons for the initially slower, but present fast growth of sales in the United States. "Ethical" preparations required Foods and Drugs Administration approval before marketing, and such approval could take two to three years, or more. "On the other hand, possibly due to the absence of an equivalent to our National Health Service, more people indulge in self-medication, and are prepared to pay for the convenience offered by the pressure pack."

Because the principles and considerations governing the formulation of pressurised products for internal administration differed from those for topical application, the speaker considered it advantageous to differentiate between (i) medicinal aerosols, which he defined as preparations used for the administration of therapeutically active ingredients as fine solid particles or liquid mists via the respiratory system, and intended for prompt systemic effects or for local action in the lungs; (ii) pharmaceutical pressure packs, containing therapeutically active ingredients intended for topical administration; and (iii) medicinal pressure packs, intended for local application in one of the body orifices. Ophthalmic preparations could be included in the group.

The administration of medicinals in the form of fine liquid, or solid mists, was not new. The atomiser, nebuliser and vaporiser had been successfully used for many years to produce finely subdivided liquid or solid particles for administration by inhalation. Mr. Herzka then outlined the mechanism and the advantages and disadvantages of such devices.

Pressure-dispensed preparations were generally more expensive than when conventionally packed and for that reason needed to possess distinct advantages. Mr. Herzka summarised those as being: (1) Speed, ease and convenience of application; (2) efficiency of dispersion; (3) elimination of contamination of product with foreign materials; (4) absence of manual contact with the medicament; (5) absence of air (oxygen) in dispenser preserved potency; (6) direct local application; (7) controlled and uniform dosage possible by use of metering valves; (8) high concentration of drug over a limited area; (9) minimum of irritation to treated area; (10) almost instantaneous response to the medicament; (11) reduced danger of decomposition of the medication because it did not pass through the gastro-intestinal tract; (12) the product could be applied as a fine mist, as a wet, coarse spray, or as a foam; (13) because of the pressure with which the product was applied, better penetration was obtainable, especially where there was abrasion of the skin; (14) medication could be applied without touching painful skin areas; (15) water-sensitive materials could be kept in an anhydrous state; (16) a mist could be readily formed for inhalation purposes; (17) if the product were packed under sterile conditions, sterility within the pack could be maintained throughout shelf life; (18) the cooling effect might be desirable in certain instances.

Propellents

As with non-medicated packs, either liquefied or compressed gases could be employed as propellents. Of the former group the speaker considered that the only ones likely to find acceptance in medicinal preparation were the fluorohydrocarbons dichlorodifluoromethane (propellent 12*), dichlorotetrafluoroethane (propellant 114*) and octafluorocyclobutane (propellent C-318*). When discharged into the surrounding air in the absence of flame or hot objects, those propellents were considered to be non toxic.

No indication of any skin sensitisation due to them had been noted, and the inhalation of propellent 12 was reported not to be detrimental. Butane could find application as a propellent in packs where flammability was tolerable, or in water-based formulations and the absence of halogen atoms was an advantage where hydrolysis had to be avoided.

The chilling effect might be desirable in some cases, but presented a problem in others. Certain studies had led to the conclusion that: (1) The chilling effect of a system was generally less than that of the pure propellent (at propellent concentrations of 70 per cent. and above, the chilling effect might be greater than that of the pure propellent); (2) the chilling effect increased as propellent concentration increased; (3) the chilling effect of propellent-solvent solvent systems, for a given solvent, were in the same relative order as the pure propellents. Results obtained using human test subjects were "not too reliable," but the effect was generally a lowering of the initial temperature of 92°F to 86–43°F.

Compressed gases such as carbon dioxide, nitrous oxide and nitrogen could also be employed. With them there was no chilling effect on the skin, but a deterioration of spray characteristics resulted due to the pressure drop within the pack.

Containers

There were no specific container problems for the larger packs; tinplate or aluminium and possibly glass containers could be utilised; and for smaller sizes aluminium or glass. Glass containers, however, should always be protected with an outer sheath of plastic or metal.

Valves, particularly their sprayheads, played an important rôle with pressurised medicaments and some products (e.g., powder-based) failed to reach the marketing stage solely because there was no suitable valve available.

With the conventional valve, the discharge rate was controlled by the restrictive orifices within the valve body or sprayhead, and by using suitable combinations it was possible to obtain a discharge rate which might be as low as 0·5 gm. per second or more than 2 gm. per second. If, however, a definite dosage was desired metering valves were necessary. They were so constructed that only a predetermined dosage (e.g. fifty, 100 or 150 microlitres) was discharged at each operation. The metering action was obtained by admitting the liquid phase (product/propellent mixture or product alone) into a metering chamber either during the up or during the down stroke of the valve. It was released during the reverse stroke, which simultaneously isolated the bulk of the liquid within the dispenser.

* TRADE MARKS: *United Kingdom*, Arcton, Isceon; *United States of America*, Freon, Genetron, Isotron, Ucon; *West Germany*, Frigen, Heydogen, Kaltron; *East Germany*, Frigedohn; *Italy*, Algofrene, Edifren; *France*, Forane, Flugene; *Spain*, Flurion; *Czechoslovakia*, Ledon.

When using compressed gases, particularly nitrogen, it was necessary to avoid propellent loss during possible misuse (e.g. if the dispenser were to be inverted during operation), and for that purpose valves were available with additional internal orifices (vapour phase taps) or with other special fitments. Certain proprietary valves were more suitable than others for powders. That applied also to the conventional sprayheads, and special powder sprayheads had been designed. Powders could also be dispensed with metering valves, though the quantity that could be tolerated at present did not exceed 5 per cent. Where application into body orifices was involved, special actuators were necessary. For formulations that clogged external valve orifices by drying or crystallising, a special actuator and protective cover had been designed, the latter in order to protect the external orifice in-between usage.

Two-phase Systems

In two-phase formulation systems the active ingredients were dissolved in the propellent or in a mixture of propellent and solvent. On releasing the valve, the active ingredients and propellent, or propellent and solvent were released. The propellent quickly vaporised leaving behind finely divided active ingredient particles. There were, however, several problems associated with such formulations. The majority of therapeutically active materials were insoluble in the propellents, and a co-solvent was necessary. Such co-solvents were limited to those having very little, if any irritating and toxic effects, when used topically or by inhalation, but lack of adequate data on many solvents complicated formulation. Ethyl alcohol, mineral oil, glycerin, propylene glycol, polyethylene and polypropylene glycol, acetone and ethyl acetate (in certain restricted applications) were some of the solvents that might be used. When solvents suitable for inhalation were considered the list was "considerably narrowed."

Three-phase Systems

In three-phase systems the active ingredients were dissolved in water, and mixed with a relatively small quantity of liquefied gas propellent. By using sprayheads incorporating a mechanical impediment ("mechanical break-up sprayheads") to the emerging spray, the required spray characteristics were obtainable. Mr. Herzka knew of no medicinal products utilising three-phase systems at present, but considered that would "no doubt be rectified in the future."

Emulsified System

By using suitable emulsifying agents the aqueous solution of the active ingredient could be emulsified with the liquefied propellent, causing the product to be dispensed as a foam. The active ingredient could thus be applied either to large or limited areas with little, if any, irritation. The "quick-breaking" foam rapidly collapsed in contact with the skin leaving a solution of the active ingredient. By using that system it was possible to apply medicaments to wounded areas without rubbing.

Suspended or dispersed systems were employable for insoluble materials, or those rendered insoluble in the propellent. By means of suitable dispensing agents the active ingredients were suspended in the propellent. During use, the finely dispersed active ingredients remained after the propellent had evaporated.

Inhalation Therapy

Mr. Herzka went on to say that inhalation therapy could be defined as the administration, via the respiratory system, of medicinal agents in the form of fine solid particles or liquid mists. In 1955, the first aerosol medicinal product had been introduced in the United States. It consisted of a self-contained pressurised unit containing adrenalin. During use, finely subdivided particles of adrenalin were dispensed, in the range of 10 microns and below, with 90-99 per cent. less than 5 microns. According to one authority, for true inhalation therapy the particles must be well below 0·5 microns and in many instances of submicronic size.

Several workers had reported significant therapeutic improvements when patients suffering from chronic asthma were treated with liquefied gas aerosols containing either adrenalin or isoproterenol. In a study of the effects of various nose drops and sprays on vasomotor rhinites of pregnancy, it was found that a liquefied gas aerosol containing phenylephrine seemed to be the most effective agent and the author had concluded that the beneficial results obtained were due to the efficient method of propelling the medication into the nasal and nasopharyngeal spaces. Ergotamine in the form of a liquefied gas aerosol had been shown by various investigators to be an effective and efficient way of introducing the drug into the circulation.

Many medicinal agents lent themselves to administration by inhalation and the speaker stated that any drug given by intravenous injection could, in most cases, be reformulated into a suitable aerosol, provided the drug was capable of being deposited in the respiratory tract and was non-irritating. Penicillin, streptomycin and other antibiotics were capable of acting locally or systemically and had proved their efficacy when administered with a nebuliser. Mr. Herzka suggested that it might be possible to suspend the finely subdivided antibiotics in the liquefied gas. That would have the added advantage of increased stability since no water would be present. By the use of a co-solvent the antibiotic might be brought into solution with a liquefied gas, and administered as liquid rather than as solid particles.

It was suggested that anti-nauseant drugs could be administered advantageously, by the inhalation technique, as the onset of their activity would be greatly increased. Inhalation therapy might also provide a suitable method for administering antipyretics, analgesics and anti-infectives to infants and children. The inhalation of low doses of cold viruses, possibly sprayed into face masks, might give protection against the common cold. Possibly a variety of other vaccines could be so administered.

The speaker then discussed the variety of pharmaceutical pressure packs that had been devised.

A study of the behaviour of two general type ointment bases with compressed and liquefied gases had shown that ointment bases consisting of:

(1) Polyethylene glycol 4000
5 or 10 per cent. by weight
Polyethylene glycol 400
95 or 90 per cent. by weight
or

(2) Petroleum U.S.P.
60 per cent. by weight
Liquid Petrolatum, U.S.P.
40 per cent. by weight

could be dispensed easily by nitrogen at 90 p.s.i.g. The addition of a surface active agent to the propellent-based mixture was found to increase the stability of most of the products as far as separation of ingredients was concerned. Whenever a foam-type spray was produced, the foam quickly collapsed releasing the base in its original form.

Anæsthetics

Ether and ethyl chloride had been used as local anæsthetics for some time although accompanied by the hazards of flammability and explosion, irritation to the skin and potentially dangerous anæsthetic action by inhalation. Propellants such as dichlorotetrafluoroethane and dichlorodifluoromethane could be sprayed on the skin in the same way as ethyl chloride with the advantages of being non-combustible, non-explosive, non-toxic, non-irritating, possessing very little odour, and having no general anæsthetic properties.

Considering adhesive tape removers and bandage adherents, Mr. Herzka said the former consisted of a solvent such as ethyl alcohol, acetone, or isopropyl myristate, oleate, stearate, etc., dissolved in the propellent, Rosin, benzoin, and other resinous materials were used for the bandage adherents.

There were basically two types of preparations used as body rubs. One consisted of a silicone incorporated into a suitable base, and the other of an alcohol such as ethanol or isopropanol, together with a propellent. They were generally used for the prevention of bed sores in bed-ridden patients.

Burn remedies consisted chiefly of a local anæsthetic in combination with antiseptic agents such as sulphur, hexachlorophene, benzyl alcohol, tannic acid, etc. In addition cooling and soothing agents such as menthol were generally present. Dermatological products included products used as anti-pruritics, anti-inflammatory agents, acne treatments, and for poison ivy allergy and related conditions. Many utilised a steroid as the active ingredient. Others made use of antihistaminics. They were extremely effective because maximum penetration of the active ingredients with a minimum of waste was achieved. With foam preparations, the medication was applied only to the affected area and without waste.

The pressurised pack was an ideal method for the application of foot preparations. The usual ingredients for athlete's foot remedies were undecylenic

acid and one of its salts. Other foot preparations employed a talcum powder, with or without an antiseptic (such as hexachlorophene).

Bandage sprays were solutions of resins in solvent and propellant which, when sprayed on the skin, formed a plastic film. The advantages over adhesive tape were: (1) ease of application, (2) no encumbrance, and (3) the possibility of observing the wound without removal of dressings. Possible disadvantages were: (1) that the spray was inflammable, and (2) that the spray should not be applied where infection with anærobic organisms was suspected but both those disadvantages could probably be overcome by suitable formulation.

Several formulations utilising copolymers had been suggested as a starting point for further experimental work, and the co-polymer that appeared to have the most desirable solubility for a bandage (barely soluble in cold water, but easily removed with warm water) was 40 per cent. vinyl pyrrolidone and 60 per cent. acetate. In that basic formulation many medicinal agents such as antibiotics and antiseptics had been incorporated. Other protective film-type preparations used a silicone which provided a water resistant film over the affected area.

Medicinal Pressure Packs

Although the development of pressure packs for use in the treatment of local rectal conditions had not been significantly explored, the use of the specially shaped actuators now available should, Mr. Herzka thought, bring such packs to the fore " in the not too distant future." They could be used for the application of local anæsthetics, anti-infectives, astringent medication, and for drugs intended to be absorbed systemically.

Vaginal preparations were already on the market. One cleanser contained cetyltrimethylammonium bromide, ethoxylated lanolin alcohols, and lactic acid buffered to *p*H 5.

A nitrogen-propellent nasal spray was marketed in France, its principal ingredient being neomycin sulphate. There was scope for further development in that field also.

Several multiple vitamin preparations had been formulated using a compressed gas system. The presence of nitrogen insured stability but the general viscosity of the products offered a serious problem. Attempts to prepare a metered vitamin preparation had resulted in varying degrees of success.

In addition to the advantages previously listed, veterinary pressure packs allowed for deeper penetration through the fur; quicker administration; and lessened the risk of the animal rubbing medication from the affected area, because it was finely dispersed.

Mr. Herzka concluded by saying most of the test procedures applicable to non-medicinal pressure packs could be used for medicinal ones, but closer tolerances and stricter quality control were indicated in many instances.

Discussion

DR. G. E. FOSTER wondered whether it were possible for an aerosol can to be made completely sterile in view of the filling methods employed. He also asked how such containers could be sampled for assays, or sterility tests. MR. HERZKA agreed that it was necessary to adopt special conditions in the filling room but the pressure-filling method (and its modification) would give and maintain sterility. If the analyst was not prepared to destroy the container in samplings, special connecting tubes to the analysing apparatus could be used. If the container were held in the normal position, the product, together with the propellent would be emitted, in a two-phase, suspended, or emulsified system. If it were based on a pure three-phase system or compressed insoluble gases the product alone would be obtained. If the container were inverted, propellent only would normally be obtained.

MR. K. MOOREY inquired about the possible danger of butane as a propellent under household conditions. MR. HERZKA answered that recent information made it appear that butane had a lower toxicity than the halogenated propellents. On the question of danger in the house, he said " People are using butane today in not inconsiderable quantities, for the so-called water-based products. We generally classify something as being dangerously inflammable by carrying out up to five tests, two being the flame-sustaining and flame-extension tests." A moth-proofer based on kerosene or ordinary hair-sprays (containing non-inflammable Arcton with alcohol) gave a far greater flame extension than aqueous butane mixtures (which in fact extinguished flame). Nevertheless, if the container were to spring a leak during storage, inflammable butane would escape and that would be more hazardous than under use conditions.

MR. R. W. RICHARDS asked what kind of applicator the speaker envisaged for applying aerosols to the eye and MR. HERZKA replied " A nitrogen-propelled aerosol and a metering valve, by which you could control your pressure judiciously."

MR. R. L. STEVENS asked about the " mother-daughter type " of aerosols (in which a small refillable aerosol was filled from, say, an 8-oz. can). Frequently, he suggested, the daughter containers did not fill as they should. Was that due to the solubility of nitrogen in the propellent mixture, which caused compressed gas to be transferred to the daughter container, or was it due to the atmosphere having leaked into the partially empty daughter container? MR. HERZKA thought it unlikely that air would have leaked in because, conversely, the product would leak out. Failure to fill was possibly due to solution of gas in the propellent or solvent; it could be due to a faulty valve caused by misuse.

MR. P. J. BLOOR asked if daughter containers could be filled by chilling them and so reducing their vapour pressure? The lecturer replied: " Of course, but it is hardly the way you would expect a consumer to operate! "

MR. R. J. MEAD pointed out that, for mastitis products, the British Veterinary Codex required single-dose containers and asked if, for use with pressure packs, applicators were obtainable that could be resterilised or disposed of. MR. HERZKA considered that such applicators would be made of polythene or polystyrene and, presumably, could be sterilised and treated the same way as disposable syringes, but he considered it more practical to use something more simple and dispose of them after use.

MR. R. H. SUTARIA asked what kind of propellent was used in a veterinary product for mastitis and at what pressure. MR. HERZKA thought it would be Arcton, either 11 or 12. He guessed the pressure was probably around 35 lb. per sq. in. MR. R. C. HARRIS believed that the product in question was powered by nitrous oxide.

Asked by MR. W. J. BUSSE if he was aware of any eye-drop products in aerosol packs, and whether there were any difficulties associated with them that would account for their absence from the market, MR. HERZKA explained that, up to now, the difficulty had been valve problems. " If you are using nitrogen you must be absolutely certain that you do not lose the propellent during possible misuse."

MR. J. H. OAKLEY asked if metering valves could provide exactly the required dosage (i.e., whether any size of metering chamber was available) and whether, when using a metering valve, fractionation of propellent and medicament tended to occur. He also wanted to know if propellent could be lost by improper usage, followed in turn by inaccurate dosage. MR. HERZKA, replying to question of specific non-standard dosage chambers said " In theory, yes; in practice, only if you are prepared to pay for it." Only two metering valves were available in America and one in France." Manufacturers, in order to keep the cost as low as possible, restricted themselves to certain popular sizes only. Development costs for a custom valve might be prohibitive. As to the separation of propellent and product, there were two types of metering valve: those that filled the metering chamber when the press-button was released and those that sealed the metering chamber at the time of use. Fractionation was possible if the metering chamber were sealed when the aerosol was not in use. That would not apply, however, where a liquefied propellent was used. The loss of liquefied propellent would not affect performance but, with insoluble compressed gas (such as nitrogen), " three seconds, or less, is all you need to inactivate your container completely." With nitrous oxide, or CO_2, partial loss would certainly reduce the efficiency of spray, and spraying in the inverted position would also tend to inactivate the pack.

A MEMBER wondered whether the same propellent could be used under all climatic conditions, and MR. HERZKA replied " In a stainless steel container it could (as for instance with inhalant)." The particle size might vary, however, with the ambient temperature.

MR. C. HURNDELL asked if low-pressure aerosols in uncoated glass, could be used for pharmaceuticals. MR. HERZKA confirmed that it could, but recommended a coating. Risk of breakage was greatly reduced with a small container, but a plastic coating would give practically 100 per cent. safety.

Laboratory Animals Today

DR. LANE-PETTER ADDRESSES EDINBURGH EVENING MEETING

THE second evening meeting of the Scottish Department of the Pharmaceutical Society was held in Edinburgh on January 16, MISS M. A. BURR (president of the Society) in the chair.

MR. W. C. D. BAIN (chairman, Scottish Department Executive) introduced the president to the audience. He said that the occasion was the first in 111 sessions on which a president of the Society had taken the chair at an evening scientific meeting in Edinburgh. MISS BURR said that, when one read the history of the Scottish Department, it made one realise how much Scotland had contributed to the advancement of pharmacy. The first secretary in Scotland (John Mackay) had been closely associated with Jacob Bell in the founding of the Pharmaceutical Society and pharmacists in Scotland had a great tradition to live up to.

Introducing the lecturer (Dr. W. Lane-Petter), Miss Burr said that he was a Privy Council nominee on the Society's Council and gave a great deal of his time and expert knowledge to their deliberations, serving on the Education, Organisation and Finance Committees. He was director of the Laboratory Animals Centre of the Medical Research Council, and secretary of the International Committee on Laboratory Animals.

Safeguards Against Toxicity

In his address, DR. LANE-PETTER recalled that about three years ago, an article in the *Pharmaceutical Journal* had drawn attention to the fact that about 3 million animals were used in a year in Great Britain for experiments under the Act of 1876. Today's figure was nearer 4 millions. Comparatively recent events had shown that some drugs had hitherto unsuspected toxicities and side effects, and that in future it would be necessary to intensify still further the efforts to prove the harmlessness of a new drug before its release for clinical use.

That meant using more animals for testing new drugs and assaying existing ones, because it was impractical and unethical to use man himself in the first instance. It was well, however, to pause and ask oneself why experimental animals were used in research. First, they were used when there was a likelihood of risk to life or health; second, when it was necessary to conduct an experiment on a group of similar subjects (groups of similar animals could more easily be contrived than groups of similar men); and third, even without the ethical objection, man would be too expensive an experimental animal for almost all purposes.

When it was decided that animals must be used, a second question had to be posed, "what do we expect from the animal?" It was expected to survive the experiment and not die of intercurrent disease. Groups of animals were expected to be reasonably uniform, at least in respect of the characteristics for which they had been chosen for a particular experiment. Next, the animals were expected to respond specifically to the drug that was being administered to it. Usually, the more sensitively it responded, the better. Lastly, the animal was expected to be reasonably economical, though an expensive animal that produced a satisfactory experimental result might be cheaper in the long run than a cheap animal that gave an ambiguous answer.

Those four requirements were exacting. In the past, too many animals had died of intercurrent disease permanently resident in the breeding colony from which they had been derived. Both a variable load of disease and a mixed and uncertain ancestry led to the opposite of uniformity, and many more animals might be needed if a statistically intelligible result was going to be obtained. Then, for example, the search for possible teratogenic effects of a new drug was best carried out on rabbits, which appeared to be much more sensitive to that effect than, say, rats.

A Question of Breeding

The requirements provided problems for those interested in producing the right sort of animal for the investigator. The fundamental principle in the production of laboratory animals of high quality was that that production should be in two stages. The first stage was the establishment, under the most carefully controlled conditions that could be contrived, of breeding stock for further expansion in numbers. The wise potato grower went to certain parts of Scotland for his seed because he knew that it would be free of serious disease. Similarly, the wise breeder of laboratory animals would go back repeatedly to the source of breeding stock which was known to be free at least of the more serious of common infections, and preferably free of all disease-producing organisms. The second stage was to breed from those animals, but only for a limited number of generations. He had recommended that the limit should be three generations.

The task of quality control could, under the conditions of two-stage production, be concentrated on the first stage, or primary type colony, as it had come to be called. There, complete pedigrees of every animal raised had to be kept in order to ensure that they were genetically what they should be. The health of a whole colony was constantly checked by routine bacteriological examinations and also by a very close watch on incidental mortality. Even the healthiest colony seemed to have some incidental mortality, and a slight rise in the base figure may be the first warning that something was amiss. The standard of nutrition had naturally to be of the first order because animals suffering from even a mild deficiency disease were not likely to make good experimental material. Lastly, it was necessary to check repeatedly that a strain of animal selected for some particularly useful specific response to drugs should retain that useful characteristic indefinitely and that the characteristic was not accidentally bred out.

Animals were sentient creatures and required a high standard of care. That was not only a humane obligation imposed upon all who used animals in the laboratory, but was also enlightened self-interest, because the well-cared-for animal was also going to be the best experimental animal. To examine the problems of laboratory animals from a strictly objective point of view may appear at first sight to overlook that obligation of humanity, but it was a most fortunate circumstance that, in nearly every case, the demands of science and of humanity were identical, both in providing the best conditions for the animals and in devising experiments in which pain was reduced to the absolute minimum, even to vanishing point. "Today's laboratory animals and, even more so, the ones we are actively preparing to breed tomorrow, have been unrivalled in the past for health, pedigree and a standard of husbandry that is almost lavish." Today's animals were also more expensive than yesterday's. "There is no doubt," concluded Dr. Lane-Petter, "that they will serve us in a way that their forebears were inherently incapable of doing."

During the discussion which followed DR. J. H. TAYLOR (St. Andrews) asked Dr. Lane-Petter what future legislation on laboratory animals he expected. Dr. Lane-Petter said that a Home Office departmental enquiry had been set up to make recommendations. He had not seen the terms of reference of the committee and the composition of the committee had not yet been published. Dr. Taylor then asked if different human types would respond differently to the same drug, as did animals. Dr. Lane-Petter replied that this was so. There must, he said, be a relationship between somatotype and response.

Danger of Confusion

A questioner asked if, in the development of many different strains, there were not a danger that the research worker would be confused as to which one he should use and how he would select the most suitable. Dr. Lane-Petter replied that there was no need for the research worker to study the characteristics of all strains. The pharmacologist should know the uses of the different animals, and in the future, the strains that were available would be fully catalogued and the worker would just look it up in the book. Asked how that would apply to someone working with a new type of virus, Dr. Lane-Petter replied that he would have to do a bit of empirical "fishing," and it would not be long before he found a suitable strain.

DR. J. H. TAYLOR, in proposing the vote of thanks to the speaker, said that his faith in the Medical Research Council had been reaffirmed. Speaking as a small-time operator, he could not help feeling wistful to hear of the degree of perfection which could be achieved at the Laboratory Animals Centre.

TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, FEBRUARY 6: Quiet trading conditions were general in most sections of the market and, apart from those of a few commodities, prices were held at previous levels.

Among CRUDE DRUGS, shipment prices for Portuguese ERGOT were firmer at 9s. per lb. Aleppy green CARDAMOMS advanced, reflecting firmer prices at origin and reports of attempts to introduce fixed prices. Brazilian MENTHOL for shipment eased, reductions ranged from threepence to sixpence per lb. There was a reduction of one shilling, to 9s. 6d. per lb., in quotations for COPAIBA BALSAM, B.P.C. Reflecting the political situation in the Far East, PEPPERS were much firmer. In AROMATIC SEEDS, CARAWAY and CELERY eased but spot supplies of CORIANDER and FENNEL were firmer.

Among ESSENTIAL OILS the continued demand combined with restricted offers from Formosa brought about marginal increases in CITRONELLA. However, the shipment price of LEMONGRASS was lowered by sixpence per lb. There was a continued weak market in Brazilian PEPPERMINT. One shilling per lb. more was asked for Chinese ANISE on the spot, and shipment prices increased by three-halfpence per lb.

Pharmaceutical Chemicals

ACETANILIDE. — Crystals, One-cwt. lots, 2s. 10d. per lb.; 5-cwt., 2s. 9d.

ACETYLSALICYLIC ACID. — One-ton lots, 4s. 0½d. per lb.; 5-cwt., 4s. 5d.; 1-cwt., 4s. 8d.

ADRENALINE. — (Per gm.). Synthetic B.P. 1-kilo lots, 11d.; 500 gm., is 1s. 1d. ACID TARTRATE, B.P., 1 kilo, 7½d.; 500 gm. 9d.

ALUMINIUM SULPHATE.—B.P.C. in 1-cwt. sacks, 1s. 9d. per lb.

ARECOLINE.—Alkaloid, 51s. per oz.

ATROPINE. — Per oz. for 16-oz. lots: ALKALOID and METHONITRATE, 39s.; METHYLBROMIDE, 38s. 6d.; SULPHATE, 34s. (1,181s. for 1-kilo).

BARIUM SULPHATE. — B.P. 250-kilo lots, 3s. 3½d. per kilo.

BENZYL BENZOATE. — B.P. in 1-ton lots, 4s. 6d. per lb.

BROMIDES.—Crystals (per lb.):—

	1 cwt.	5 cwt.
	s. d.	s. d.
POTASSIUM	2 6	2 5
SODIUM	2 6	2 5
AMMONIUM	2 10	2 8½

Powder is three-halfpence per lb. more, packages free, carriage paid terms.

BRUCINE. — Per oz. ALKALOID is 5s. and SULPHATE, 4s.

CAFFEINE. — ANHYDROUS and MONOHYDRATE, 30s. 9d. per kilo for under 50-kilo lots and 29s. 9d. for over 50 kilos. CITRATE, 23s. 6d. and 22s. 7d. for equivalent lots.

CALAMINE.—Five-cwt. lots, 1s. 10d. per lb.; 1-ton, 1s. 8½d.

CALCIFEROL. — B.P. from 2s. 10½d. to 3s. 3d. per gm. for 1-kilo lots.

CALCIUM CARBONATE.—B.P. light precipitated powder, 1-ton lots, £35 per ton in free bags, ex works.

CALCIUM CHLORIDE.—B.P.C. fused, 11½d. per lb. in 1-cwt. lots.

CALCIUM GLUCONATE. — Three-cwt. and upwards, 3s. 8d. per lb.; 1–2 cwt., 3s. 9d.

CALCIUM SUCCINATE. — 10s. 6d. to 12s. per lb., as to quantity. SUCCINIC ACID is from 10s. 6d. to 12s. 3d. per lb.

CANTHARIDIN. — Per oz. 222s. 6d. for 4-oz. lots.

CHARCOAL. — Medicinal activated, B.P.C. in 1-cwt. lots, £22 10s. per cwt.

CHINIOPHON.—B.P. 1948, 58s. per kilo; CHINIOFONIC ACID, 83s. 9d. per kilo.

CHLORAL HYDRATE. — One-cwt. lots 4s. 6d. per lb.

CHRYSAROBIN.—Per kilo, 5-kilo lots, 150s.

CITRIC ACID.—Domestic powder (in kegs) per cwt., 1–4-cwt. lots, 172s. per cwt.; 5–19-cwt., 171s.; 1-ton, 170s. If packed in bags deduct 7s. per cwt.

CREAM OF TARTAR.—Home trade:—One-ton lots, 241s. per cwt., 10-cwt., 242s.; 5–9-cwt., 243s.; 2–4-cwt., 244s.; 1-cwt., 245s. (If supplied in bags deduct 5s.)

CYANOCOBALAMIN. — Less than 25-gm. lots, 110s. per gm.; 100-gm., 105s. per gm.

DICOPHANE. (DDT). — One ton lots, 2s. 4½d. per lb.

DIHYDROXYACETONE. — 50-kilo lots are 62s. per kilo.

ERGOMETRINE.—MALEATE, B.P., 155s. per gm. for 20-gm. lots; TARTRATE, 30s. per gm. for 100-gm. lots.

ERGOTOXINE. — ETHANESULPHONATE, 10-gm. lots, B.P. '32, 60s. per gm., B.P.C. '49, 72s. 6d.

ETHER. — Per lb. in winchesters: B.P. TECHNICAL, B.S.S., 5-cwt., 2s. 9d.; (4s. 4d. per litre). In drums the price is 2s. 1d. per lb. ANÆSTHETIC, B.P., 6-cwt., 3s. 11½d.; 10-cwt., 3s. 7½d.

FOLIC ACID. — B.P. and U.S.P., 1-kilo lots about £23 per kilo.

GLUCOSE. — Medicinal, B.P., POWDER, 66s. 6d. per cwt., delivered in 1-ton lots, 1–4 cwt., 69s.; 56-lb. bags, 36s. LIQUID, basic price, 48s. 6d. cwt.

GLYCERIN.—Chemically pure B.P.:—

	Over 25 tons	5 tons and under 25 tons	1 ton and under 5 tons	Under 1 ton
TANK WAGONS	s. d.	s. d.	s. d.	s. d.
10-14 tons	166 0	—	—	—
5-10 tons	167 0	169 0	—	—
DRUMS				
5-10 cwt.	170 0	172 0	175 0	181 0
2½ cwt.	172 0	174 0	177 0	183 0
1 cwt.	174 0	176 0	179 0	185 0
TINS				
56 lb.	189 0	191 0	196 0	205 0
28 lb.	195 0	197 0	202 0	210 0
14 lb	201 0	203 0	208 0	216 0

Delivery of less than 1 cwt. charged 7s. 6d. extra. Drums charged and returnable. Minimum terms for technical grade glycerin s.g. 1·2627 are 161s. 0d. per cwt. for lots of over 25 tons in bulk deliveries of 10–14 tons.

GLYCYRRHETINIC ACID.—Per oz., 50s.

GUAIACOLS. — LIQUID B.P.C., 16s. per lb., for 1-cwt. lots; CRYSTALS, 15s. 9d.; CARBONATE, 18s.

HEXAMINE.—B.P., 1s. 11½d. per lb. for 1-ton lots, delivered in 1-cwt. kegs. Technical is threepence per lb. less.

HYDROCHLORIC ACID.—B.P., 50s. per cwt. in carboys.

HYDROGEN PEROXIDE. — 27·5 per cent. (by weight), £115 per ton; 35 per cent. £135 in returnable carboys.

ISOPRENALINE SULPHATE.—One-kilo lots, 530s. per kilo; 5-kilos, 510s. per kilo.

IODIDES. — (Per kilo). Potassium, 50-kilo lots. 19s. 3d.; SODIUM, 24s. 3d. for 25-kilo lots, AMMONIUM, 44s.

IODINE.—Resublimed in less than 50-kilo lots, 25s. 4d. per kilo. Minimum delivered rate for CRUDE is 17s. 4d. per kilo.

IODOFORM.—Powder (per kilo), 51s. 6d. in 50-kilo lots; less than 50-kilos, 53s. Crystals are 3s. per lb. more.

LACTATES. — CALCIUM, B.P., 2s. 3d. per lb. in 5-cwt. lots and 2s. 4d. in 1-cwt. lots; CALCIUM SODIUM, 4s. 9d. and 4s. 10d.

LACTOSE. — B.P. in 1-ton lots packed in 1-cwt. paper-lined sacks, £129 10s. per ton, delivered in the United Kingdom.

MANDELIC ACID.—One-cwt. lots, 12s. 6d. per lb. CALCIUM SALT also 12s. 6d. SODIUM MANDELATE, 13s. and AMMONIUM MANDELATE 50 per cent. solution, 7s. 6d.

MENAPHTHONE. — (One-kilo lots). B.P. 140s. per kilo; ACETOMENAPHTHONE, B.P., 140s.; WATER-SOLUBLE (menadione sodium bisulphite, U.S.P.), 125s.

NICOTINAMIDE. — (Per kilo). One-kilo, 38s.; 10 kilos, 36s.; 50 kilos, 34s. 6d.

NICOTINIC ACID. — One-kilo, 28s.; 50-kilos, 24s. per kilo.

NIKETHAMIDE.—Per kilo, 100s.

PHOSPHORIC ACIDS. — B.P. (s.g. 1·750) is from 1s. 4d. to 1s. 8d. per lb. as to quantity. B.P. 1914, 1s. 2d. to 1s. 6d. per lb. HYPOPHOSPHOROUS, B.P.C., in winchesters is from 7s. 5d. to 8s. 6d. per lb. as to quantity; drums, 7s. per lb.; 50 per cent. acid in drums, 8s. 9d. per lb.

PIPERAZINE.—(50-kilo lots), ADIPATE, 22s. per kilo; CITRATE, 20s. 6d.; HEXAHYDRATE, 17s.; PHOSPHATE, 23s.; TARTRATE, 22s. 6d.

PYRIDOXINE. — One-kilo, £27 10s. per kilo; 10 kilos, £27 5s.

PYROGALLIC ACID. — One-cwt., pure crystals, 24s. 6d. per lb.; resublimed 26s. 6d.

RESORCINOL.—One-cwt. lots, 12s. 4d. lb.

RIBOFLAVINE.—One kilo, £11 2s. 6d.

SALICYLAMIDE. — One-cwt., 6s. 3d. per lb., 5-cwt., 5s. 11d.

SALOL.—B.P.C., 9s. per lb. (1-cwt. lots).

STRYCHNINE. — 100-oz. lots: ALKALOID, 11s. per oz.; SULPHATE and HYDROCHLORIDE, 9d.

SODIUM PANTOTHENATE.—Per kilo, 130s.

SULPHUR. — (Per ton). SUBLIMED FLOWERS, B.P., £47 10s.; COMMERCIAL, £45; POWDER, £19 to £24; PRECIPITATED, B.P., £100; ROLL, £24. All ex store.

TALC. — One-ton lots, B.P.C. in kegs, 1s. 2½d. per lb. ex works.

VITAMIN A. — Synthetic. Supplied in concentrate 1 million international units per gm. as acetate or palmitate the price is £25 per kilo for one-kilo lots.

VITAMIN D.—D_2 powder for tableting 850,000 i.u. per gm., 125s. per kilo; in oil, 1 million i.u. per gm., 67s. 6d. per kilo for 100,000 m.i.u. Crystalline: see under calciferol. D_3 in oil (1 mega per gm.), threepence per mega for less than 1,000 megas. Crystalline, 12s. per gm. in 100-gm. ampoule.

VITAMIN E (synthetic or natural).—TOCOPHEROL ACETATE, B.P., 25 gm. to 100 gm., ninepence per gm., 100 gm. to 1 kilo, sevenpence per gm., 1 kilo and under 10 kilos, £23 per kilo; 10 kilos, £22 15s. per kilo.

ZINC CHLORIDE. — B.P.C. cake, 7s. per lb.; sticks, 7s. 10d. TECHNICAL, 115s. per cwt.

ZINC SULPHATE. — B.P., 1-cwt. lots, 1s. 6d. per lb.

NEW ADCORTYL-E

ADCORTYL-EG

A NEW RANGE OF SQUIBB TOPICAL CORTICOSTEROIDS CONTAINING TRIAMCINOLONE ACETONIDE 0·025%

Owing to the high potency of Triamcinolone acetonide it has been found to be highly effective in the *routine treatment of commonly occurring skin disorders* at strengths below 0·1% (ADCORTYL-A) thus permitting economies without significant loss in therapeutic activity. For this reason Adcortyl-E and Adcortyl-EG were made available to hospitals in September 1962 and following their acceptance are now being introduced to General Practitioners.

THIS NEW RANGE WILL BE AVAILABLE AS FOLLOWS:

ADCORTYL-E

(Squibb Triamcinolone Acetonide 0·025%)

		Trade	Retail
CREAM	5 gm.	3/3	4/10½
	15 gm.	6/6	9/9
	50 gm.	17/6	26/3
LOTION	15 cc.	6/9	10/4½
OINTMENT	5 gm.	3/3	4/10½
	15 gm.	6/6	9/9
	50 gm.	17/6	26/3

ADCORTYL-EG

(Squibb Triamcinolone Acetonide 0·025% with Graneodin)

		Trade	Retail
CREAM	5 gm.	3/6	5/3
	15 gm.	7/-	10/6
	50 gm.	19/-	28/6
LOTION	15 cc.	7/3	10/10½
OINTMENT	5 gm.	3/6	5/3
	15 gm.	7/-	10/6
	50 gm.	19/-	28/6

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YOUR PROFIT.....**1/4½**

Plus BIG BONUS Offer

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Crude Drugs

ALOES. — Cape primes, spot, 190s. per cwt.; February–March shipment, extra primes, 195s., c.i.f.; primes, April–May, 185s., c.i.f. Curaçao, spot, 350s.; shipment, 340s., c.i.f.

BALSAMS. — Per lb.: CANADA: Spot, 18s. to 25s. COPAIBA: B.P.C. grade, 9s. 6d., duty paid. PERU: Spot, 8s. 6d. duty paid. TOLU: B.P., from 10s. 6d. to 17s. 6d.

BUCHU. — Spot, 4s. per lb.; shipment, 3s. 10d., c.i.f.

CARDAMOMS.—Aleppy greens 8s. per lb. spot; shipment, 7s. 3d., c.i.f. Seeds, spot, Whole, 16s. 6d.; splits, 10s. 3d.

CASCARA. — Spot, 1961 peel, 225s. per cwt. 1962 peel, 215s. and for shipment, 205s., c.i.f.

CINNAMON QUILLS.—Shipment (c.i.f., per lb.) 4 O's, 6s. 3¼d.; single O, 5s. 9¼d.; seconds, 4s. 7¼d.; quillings, 3s. 9¼d.; featherings, 1s. 11¼d.

CLOVES. — Zanzibar spot, 2s. 10¼d. per lb. standard grade; shipment, 2s. 7½d., c.i.f.

COCHINEAL.—Canary Isles black-brilliant nominal; silver-grey, 14s. 6d. per lb., c.i.f. Peruvian, silver-grey, 10s., c.i.f.

COCILLANA.—Bark, 2s. 3d. to 2s. 6d. per lb. on the spot; only limited stocks.

COLOCYNTH PULP. — Spot and shipment nominal.

DIGITALIS.—*Purpurea* leaves, 2s. 8d. to 3s. per lb., c.i.f., as to potency.

ELEMI.—Spot, 1s. 6d. per lb. Shipment, 1s. 1d., c.i.f.

ERGOT.—East European, no crop; Portuguese, 9s. per lb., c.i.f., spot nominal.

FRANGULA. — Spot, 87s. 6d. per cwt., nominal.

GUM ACACIA. — Kordofan-cleaned sorts, 152s. 6d. per cwt., spot; shipment, 138s., c.i.f.

HENNA. — Indian, spot, about 80s. per cwt.; shipment, 65s., c.i.f.

HONEY. — (Per cwt.). Australian light amber, 110s. to 115s. and medium amber 105s. to 110s. Argentine, 122s. 6d. to 127s. 6d.; Jamaican, 115s.; Canadian, 150s. to 155s.; all ex warehouse.

IPECACUANHA. — Spot Costa Rican, 85s. per lb. Shipment (c.i.f.): Colombian 65s. per lb.

JUNIPER BERRIES. — Hungarian, 95s. per cwt.; German, 145s. spot.

KARAYA. — No. 1 gum, spot nominal: No. 2, 280s. per cwt.

KOLA NUTS. — African 5½d. spot and 4½d., c.i.f. (per lb.).

LANOLIN. — ANHYDROUS B.P. is from 170s. to 190s. per cwt. in 1-ton lots delivered, free drums.

LEMON PEEL.—Spot, 2s. per lb.

LINSEED. — Whole, 72s. 6d. per cwt.; crushed, 102s. 6d.

LIQUORICE. — Natural root: Russian, 65s. per cwt.; Anatolian, 57s. 6d.; Persian, 52s. 6d.; Sicilian 1-kilo bundles, 1s. 6d. per lb. Block juice: Anatolian from 200s. per cwt.; Italian stick from 329s. to 470s. per cwt.

LOBELIA HERB.—American spot, 6s. 3d. per lb.

MACE. — Whole, pale blade, 14s. per lb. spot.

MALEFERN.—Root for shipment quoted at 75s. per cwt., c.i.f.

MENTHOL.—Chinese: spot, 46s. per lb. duty paid; February–March shipment, 40s., c.i.f. Brazilian 22s. to 23s. in bond; shipment, 21s. to 22s., c.i.f. Formosan, 28s. 6d. in bond; shipment, 27s. 6d., c.i.f.

MERCURY. — About 61 per flask of 76-lb.

NUTMEGS. — West Indian 80's, 6s. 6d. per lb. spot; sound unassorted, 4s. 3d.; defectives, 3s. 4½d.

NUX VOMICA.—Cochin, 75s. per cwt. on the spot.

ORANGE PEEL. — Spot: Sweet ribbon, 1s. 10d. per lb.; bitter quarters: West Indian, 11½d.; Spanish, 1s. 1d.; bitter ribbon, 1s. 3d.

PAPAIN.—No. 1 from 35s. to 45s. per lb., spot as to quantity. For shipment: East African, 32s., c.i.f.

PEPPER.—White Sarawak spot, 3s. 4d. per lb.; shipment, 3s. 2½d., c.i.f. Black Sarawak spot, 2s. 4½d.; shipment, 2s. 3½d., c.i.f. Black Malabar, nominal, 320s. per cwt. spot; shipment, 260s., c.i.f.

PODOPHYLLUM. — *Emodi* for shipment, 250s. per cwt., e.i.f. and 260s., spot; *Peltatum*, 365s. per cwt., spot.

PYRETHRUM. — Extracts—partially dewaxed, 25 per cent. pyrethrins, 74s. 6d. to 65s. 6d. per lb.; decolorised dewaxed, 20 per cent., 66s. 6d. to 59s. 4d. per lb.

QUILLAIA. — Spot, 180s. per cwt. New crop for shipment, 125s., c.i.f.

RHUBARB. — Supplies of good pinky rounds cleared on the spot and no shipment offers.

SAFFRON. — Manchа superior, 160s. per lb. spot.

SARSAPARILLA. — Jamaican native red spot, 2s. 8d. per lb.; no shipment offers.

SEEDS. — (Per cwt.). ANISE.—Spanish, 272s. 6d., duty paid. CARAWAY.—Dutch, 155s., duty paid. CELERY. — Indian, 262s. 6d., spot; shipment current crop, 220s., c.i.f.; new crop, June–July, 170s., c.i.f. CORIANDER.—Moroccan dearer at 65s., duty paid; Indian, 55s.; shipment, Moroccan 53s., c.i.f., quoted. CUMIN.—Iranian, 170s., duty paid; 155s. in bond; shipment, 140s., c.i.f. DILL.—Indian, 85s., spot; shipment, 63s., c.i.f. FENNEL.—Indian, 125s., spot; shipment, 98s., c.i.f. paid. FENUGREEK. — Moroccan, 57s. 6d., duty paid; shipment, 45s. 6d., c.i f. MUSTARD.—English, 62s. 6d. to 85s. according to quality.

SENNA. — (Per lb.). *Tinnevelly* LEAVES, spot: Prime No. 1, 2s. 3d.; prime No. 2, 1s. 9d.; No. 3, f.a.q., 1s. 4d. PODS: hand-picked spot scarce at from 3s. 3d. to 3s. 6d., as to quality; manufacturing, spot nominal; forward, 2s. 6d. ex wharf. *Alexandria* pods: Manufacturing, spot cleared: forward, 2s. 6d. to 2s. 9d. per lb. ex wharf; hand-picked small lots from 5s. 3d. to 6s. 6d. as to quality.

SHELLAC.—F.O.T.N., 192s. 6d. per cwt.; No. 1, 207s. 6d.; F.O., 225s. to 275s., spot.

SQUILL.—White nominally 80s. per cwt. on the spot; new crop quoted at 75s., c.i.f.

STRAMONIUM.—Continental LEAVES 85s. per cwt. spot.

STYRAX.—Spot, 21s. per lb.; shipment, 20s. 6d., c.i.f.

TRAGACANTH. — No. 1 ribbon, £132 10s. to £135 per cwt. No. 2, £125 to £127 10s. c.i.f.

TURMERIC. — Madras finger short on spot, sellers asking 185s. per cwt.; shipment, new-crop (March-April), 132s. 6d., c.i.f.

VANILLIN.—Rates (per lb.) are now:—5-cwt. lots, 21s. 6d.; 1-cwt., 21s. 9d.; 56-lb., 22s.; small quantities, 22s. 6d.

WAXES. — (Per cwt.). BEES'.—Dar-es-Salaam, spot 485s. nominal; shipment, 480s., c.i.f. Abyssinian for March–April shipment, 405s., c.i.f. Sudanese, spot, 450s., shipment, 400s., c.i.f., nominal. CANDELILLA, spot, 465s.; forward, 460s. landed. CARNAUBA, fatty grey, spot, 315s., shipment, 287s. 6d., c.i.f.; prime yellow, spot, 620s.; shipment, 580s., c.i.f.

WITCH HAZEL LEAVES.—Spot quotations are 2s. 10d. per lb.

Essential and Expressed Oils

ALMOND.—Sweet, English expressed, 7s. per lb.; foreign, 5s. 6d.

AMBER.—Rectified on the spot, 1s. 6d. per lb.

ANISE. — Chinese, 20s. per lb., spot nominal; shipment, 18s. 7½d., c.i.f.

ARACHIS. — Spot, 2–5 ton lots naked ex-mill, £113 per ton.

BAY. — West Indian about 25s. per lb. on the spot.

CAMPHOR, WHITE. — Chinese, 2s. 4d., duty paid, per lb.; shipment, 1s. 9d., c.i.f.

CARDAMOM.—English-distilled unquoted; imported, 260s. per lb.

CITRONELLA. — Ceylon, spot, 9s.; shipment, 8s. 9d. per lb., c.i.f. Formosan, 13s. 3d. in bond; February shipment, 13s., c.i.f.; Chinese, spot cleared; February shipment, 12s. 9d., c.i.f.

CLOVE.—Madagascar leaf spot, 8s. 1½d. per lb., duty paid; shipment, 6s. 7½d., c.i.f. RECTIFIED 87–88 per cent., 12s. Distilled bud-oil, English B.P., 27s. for 1-cwt.

COD-LIVER. — B.P. is 11s. 6d. per gall. including charged returnable drums. Veterinary is from 9s. 6d. per gall. Delivered terms, 25-stone lots.

CUBEB.—Spot supplies of imported are 85s. per lb.

EUCALYPTUS.—B.P., 6s. 6d. and 6s. 9d. per lb. on spot for 70–75 and 80–85 respectively.

GERANIUM.—Bourbon, 95s. to 110s. per lb. on the spot.

LAVENDER SPIKE.—Spanish, 12s. 6d. per lb. for original drums.

LEMONGRASS. — Spot, 14s. 3d. per lb.; shipment, 13s. 9d., c.i.f.

NUTMEG.—Imported B.P. oil is from 36s. to 76s. per lb. as to source. English distilled, 132s. 6d.

ORANGE.—Floridan sweet oil nominally 7s. per lb. South African and Rhodesian, 7s. 6d., spot.

PENNYROYAL. — Spot, 15s. per lb., duty paid.

PEPPERMINT. — *Arvensis:* Chinese spot, 18s.; shipment, 16s. 6d., c.i.f. Brazilian spot, 6s. 9d. to 7s.; shipment, 6s. 4½d. to 6s. 7½d. as to brand, c.i.f. *Piperita:* Italian, 48s. to 70s., spot. American from 35s. to 38s. 6d. per lb. as to make.

PIMENTO.—English-distilled berry from 135s. per lb.; imported, 32s. 6d. Rectified leaf, 19s. 6d. per lb.

ROSEMARY. — Spanish genuine is 9s. per lb. spot.

RUE.—Spanish is 23s. 6d. per lb., spot.

SPEARMINT.—American oil on the spot 24s. per lb.

VETIVERT.—Bourbon spot, 95s. to 105s. per lb.; shipment, 95s., c.i.f.

UNITED STATES REPORT

NEW YORK, FEBRUARY 5: VITAMIN prices turned easier to make ASCORBIC ACID $4·50 per kilo, down 30 cents, THIAMIN HYDROCHLORIDE $16·50, down $2; THIAMIN MONITRATE $17·25, down $1·15, and U.S.P. grade RIBOFLAVIN $28, down $1. BRUCINE advanced to bring the SULPHATE up to 75 cents an ounce and the ALKALOID to 80 cents, each 30 cents higher. Lower per lb. among CRUDE DRUGS were LEMON PEEL at 35 cents, down 15 cents; SENEGA ROOT at $2·15, down 10 cents; and Spanish SAFFRON at $27, down $1. Among ESSENTIAL OILS, LIME was firmer with the expressed $9·25 to $9·50, up about 10 cents a lb. Lower per lb. were Florida ORANGE OIL at 80 cents, down 20 cents and GRAPEFRUIT OIL at $2, down 25 cents.

WORLD TRADE

Tasmania Mint Oil Production.— Experiments being eondueted at a distillery in Tasmania are reported to have given eneouraging indieations that peppermint and spearmint oils ean be produeed sueeessfully there. The experiments, in the Lilydale distriet of north-eastern Tasmania, have been proeeeding for nearly ten years. The main problem has been to prevent weeds from growing among the plants. There are now good prospeets that new sprays ean eradieate the weeds without damaging the mint plants and the next stage will be to see if the mint oils ean be produeed eeonomieally. Experimental erops of spearmint and peppermint are being grown from roots brought from Ameriea.

Increased U.S. Sales of Chemicals.— Sales of U.S. ehemicals and allied produets are expected to total $34,500 millions. in 1963, an inerease of about 6 per cent. over the 1962 estimates. The outlook is stated to be espeeially favourable for the newer organics, chemicals specialities, and plastics materials. Imports also will increase, narrowing the gap slightly between exports and imports. Sales by foreign subsidiaries are expeeted to rise about 10 per cent.

PRINT AND PUBLICITY

PRESS ADVERTISING

COW & GATE, LTD., Guildford, Surrey: Milk food, cereal food and dairy weaning foods. In magazines and medical and nursing Press.

CUXSON, GERRARD & CO., LTD., Oldbury, Birmingham: Sylvia sanitary towels. In *Family Star, Woman's Realm, Valentine, Marilyn, Red Letter, Woman, Daily Herald, Red Star, Secrets* and *Roxy*.

DENDRON DISTRIBUTORS, LTD., 94 Rickmansworth Road, Watford, Herts: Yaxa preparations. In *Daily Mirror, Woman's Mirror, She, Honey, Vanity Fair* and *Woman & Beauty*.

FOSTER-MCCLELLAND PRODUCTS, LTD., Cornwall Road, Hatch End, Middlesex: Cutipen and Nutrinail. In *Woman's Own, Woman* and *Woman's Realm*.

FOSTER-MCCLELLAND PRODUCTS, LTD., Doan's backache pills. In *News of the World, The People, Sunday Express, Daily Express, Daily Herald, Daily Mail*, London and provincial evening newspapers.

LILIA WHITE (SALES), LTD., Welwyn Garden City, Herts: Atrixo. In *Daily Express, Daily Mirror* and *Woman's Mirror*. Nivea Creme. In *Woman, Woman's Own, Woman's Realm* and *Woman's Mirror*.

NEW ERA LABORATORIES, LTD., Cecil House, Holborn Viaduct, London, E.C.1: Zief tablets. In *Daily Herald, Daily Mail, Daily Sketch, Daily Telegraph, News of the World, The People, Sunday Express* and *Radio Times*.

ORGANON LABORATORIES, LTD., Crown House, London Road, Morden, Surrey: Endocil. In *Daily Telegraph, Woman, Woman's Own* and other women's magazines.

PRACTICAL PHARMACEUTICALS, LTD., 37 Jesmond Road, Newcastle-on-Tyne, 2. Actifs capsules. In *Daily Mirror, Daily Express, Daily Mail, Daily Herald, The People, News of the World, Sunday Pictorial* and provincial newspapers and magazines.

ROBINSON & SONS, LTD., Wheat Bridge Mills, Chesterfield: Mene sanitary towels. In women's magazines.

WARRICK BROS., LTD., Warrex Laboratories, Tile Hill, Coventry: Rinstead pastilles. In *News of the World, Radio Times* and *The People*.

Medical Propaganda

MERCK, SHARP & DOHME, LTD., Hoddesdon, Herts. "Cremosuxidine, Cremostrep, Cremomycin. Full antidiarrhoeal range for flexibility in treatment" (3-p. folder and pocket card).

ROCHE PRODUCTS, LTD., 15 Manchester Square, London, W.1: "Librium . . . Anxiety and cardiovascular disease" (15-p. booklet). "Madríbon . . . first for resistant infections." (card).

DISPLAY MATERIAL

L.A.B., LTD. (LABORATORIES FOR APPLIED BIOLOGY, LTD.), 91 Amhurst Park, London, N.16: Pernomol chilblain paint. Circular showpiece (diam. 5 in.) on card or on gummed paper depicting head of a mountain-rescue dog. White letters on blue, and illustrating tube of product.

CONTEMPORARY THEMES

Subjects of contributions in current medical and technical periodicals.

CONTINUOUSLY CULTURED TISSUE CELLS and viral vaccines. *Science*, January 4.

ANTICHOLINERGIC DRUGS and the central control of thirst. *Science*, January 4.

RADIATION and cancer. *Discovery*, February.

PHOTOCHROMISM. *Discovery*, February

FIVE PROPRIETARY ANALGESIC COMPOUNDS. A comparative study of. *J. Amer. med. Ass.*, December 29.

HYPERBARIC OXYGEN DRENCHING. Treatment of clostridial infections with. *Lancet*, February 2.

INTRAVENOUS REGIONAL ANALGESIA. *Lancet*, February 2.

THALIDOMIDE. Effects of, and its derivatives on human leucocytes cultured *in vitro*. *Lancet*. February 2.

DIURETICS. *Brit. med. J.*, February 2.

17-HYDROXYPROGESTERONE CAPROATE. Double-blind study of effect of, on abortion rate. *Brit. med. J.*, February 2.

METHYLDOPA in the treatment of hypertension. *Brit. med. J.*, February 2.

THE NEWER PENICILLINS. Evolution of natural resistance to. *Brit. med J.*, February 2.

HIGH-DOSE MUSTINE THERAPY for bronchial carcinoma. *Brit. med. J.*, February 2.

EXPORT MERCHANTS. Report of the working group on. *Board of Trade J.*, February 1.

LYSOZYME. Antihistaminic action of. *Nature*. February 2.

SYNOVIAL JOINTS. Lubrication in. *Nature*, February 2.

A FREEZING-THAWING TECHNIQUE for concentrating antibodies in serum. *Nature*, February 2.

PROTEIN digestibility and ingestion. *Nature*. February 2.

PENICILLINS and penicillin destruction. The estimation of. *J. Pharm. Pharmacol.*, February.

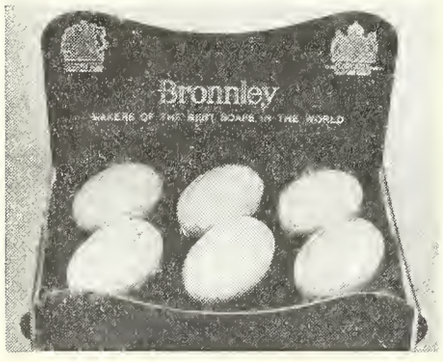
SOME ENTERIC-COATED SODIUM AND POTASSIUM CHLORIDE TABLETS. The alimentary absorption of. *J. Pharm. Pharmacol.*, February.

N-DODECYL-4-AMINOQUINALDINIUM ACETATE (laurolinium acetate). A new cationic antimicrobial agent. *J. Pharm. Pharmacol.*, February.

HUMAN PHARMACOLOGY and addictiveness of certain dextroisomers of synthetic analgesics. *Bull. Narcot.*, July-September 1962.

CANNABIS RESIN. A comparative study on some chemical and biological characteristics of various samples of. *Bull. Narcot.*, July-September 1962.

SUBSTITUTED DITHIOCARBAMATES and related compounds as trichomonacides. *J. Pharm. Pharmacol.*, February.







AIDS TO DISPLAYS: Left: A strong cardboard, 8 in. high, 11 in. wide and 5½ in. deep, covered with a rich purple flock, impressed in gold with the maker's name and the two royal warrants, for displaying six tablets of the turtle-oil toilet soap (one in each fragranee) of H. Bronnley & Co., Ltd., Braekley, Northants. Centre: A "merehandiser" that capitalises the "impulse purehase" idea that governs, almost more than any other product, the turnover in razor blades. Issuers of the displaypieee, Gillette Safety Razor Co., Great West Road, Isleworth, Middlesex, point out too, that the teenage "bulge" will bring reeord numbers of new shavers in 1963. Already, since 1953, consumer sales of razors and blades have inereased by more than £2 millions to an estimated present value of £11,846,000 annually. The five-colour Blue Gillette Extra "blade bar" features Keith Fordyce, who appears in the company's television "eommereials." Right: To complete the link to the eonsumer of their 1963 "Paper for People" eampaign, Bowater-Scott Corporation, Ltd., Knightsbridge, London, S.W.1, have issued new, interehangeable display material capable of promoting any one, or all of the company's brands, and making ten pieees of material do the job of thirty-five, previously in eireulation. The material ineludes a headboard (20¾ x 15¾ in.) depicting a multi-eoloured bunch of flowers, each bearing a brand name (Seotties, Andrex, Handy Andies or Scottowels); stack cards (14 x 11¼ in.) in blue, green or pink, with petal eirele and white centre left blank for the retailer to fill in the brand he is displaying; "dump" trays in white card (supplied flat) and opening up for insertion inside the top of an Andrex two-roll paek case; and case wraps, in the same design as the headboards.

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Monday, February 11

OLCHESTER BRANCH, PHARMACEUTICAL SOCIETY, White Hart hotel, Braintree, at 8 p.m. Dr. J. A. Carman on "Medical experiences on the High Seas."

ENFIELD CHEMISTS' ASSOCIATION, School of Pharmacy, Brunswick Square, London, W.C.1, at 7 p.m. Visit.

ARROW BRANCH, PHARMACEUTICAL SOCIETY, Conservative club, Lowlands Road, Harrow, at 8 p.m. Film: "Diuresis" (CIBA Laboratories, Ltd.).

ORTH LONDON PHARMACEUTICAL ASSOCIATION, Beale's restaurant, 368 Holloway Road, London, N.7, at 7.45 p.m. National Pharmaceutical Union Branch annual meeting.

LYMOUTH BRANCH, PHARMACEUTICAL SOCIETY, lecture hall, Freedoms Field hospital, Plymouth, at 7.30 p.m. Mr. S. J. Corne on "Drug Addiction."

OMFORD BRANCH, PHARMACEUTICAL SOCIETY, Unicorn hotel, Gidea Park, Romford, at 7.45 p.m. Film. Discussion of branch resolutions.

OUTHAMPTON BRANCH, PHARMACEUTICAL SOCIETY, Polygon hotel, Southampton, at 7.30 p.m. Talk by Mr. P. Abbey (consulting ear, nose and throat surgeon, Southampton group hospitals).

NIVERSITY OF LONDON, Senate House, Russell Square, London, W.C.1, at 5.30 p.m. Dr. M. F. Perutz on "Structure of Proteins" (John Coffin Memorial lecture).

Tuesday, February 12

IRMINGHAM PHARMACEUTICAL ASSOCIATION and BRANCH, PHARMACEUTICAL SOCIETY, The White Horse hotel, Congreve Street, Birmingham, at 7.30 p.m. Mr. W. M. Darling (a member of Council) on "The Report of the Committee on the General Practice of Pharmacy."

BLACKPOOL BRANCH, PHARMACEUTICAL SOCIETY, Science department, Blackpool technical college, at 7 p.m. Professor A. D. Macdonald (University of Manchester) on "Antibiotics (II)."

COVENTRY AND WARWICKSHIRE BRANCH, PHARMACEUTICAL SOCIETY, Masonic hall, Little Park Street, Coventry, at 8 p.m. Cosmetic demonstration by Max Factor, Ltd.

DONCASTER BRANCH, PHARMACEUTICAL SOCIETY, Ivanhoe hotel, Sprotborough, Doncaster, at 8.15 p.m. Mr. E. A. Broeklehurst (a member of Council) on "Present Pharmaceutical Topics."

GUILDFORD BRANCH, PHARMACEUTICAL SOCIETY, Prince of Wales hotel, Guildford, at 7.30 p.m. Talk by a member of Council.

HOUNSLOW BRANCH, PHARMACEUTICAL SOCIETY, Annexe, Isleworth Polytechnic, St. John's Road, Isleworth, at 7.30 p.m. Dr. C. Franklin on "Drugs in the Treatment of Diseases of the Cardio-Vascular System."

LEICESTER AND LEICESTERSHIRE BRANCH, PHARMACEUTICAL SOCIETY, Bell hotel, Leicester, at 7.30 p.m. Mr. A. R. G. Chamings (a member of Council) on "Trends in Modern Medicine."

NOTTINGHAM BRANCH, PHARMACEUTICAL SOCIETY, 64 St. James's Street, Nottingham, at 7.30 p.m. Dr. H. M. Riee (director, department of pathology, General hospital, Nottingham) on "Forensic Medicine and the Hospital Pathologist."

SCHOOL OF PHARMACY, CHELSEA COLLEGE OF SCIENCE AND TECHNOLOGY, Manresa Road, London, S.W.3, at 7.15 p.m. Dr. Bridgett A. Mason (G. D. Searle & Co., Ltd.), on "Oral Contraceptives."

SOUTH-EAST METROPOLITAN BRANCH, PHARMACEUTICAL SOCIETY, Prince of Orange hotel, 189 Greenwich High Road, London, S.E.10, at 8 p.m. Dr. A. D. Hickman (Royal London Homœopathic hospital) on "Homœopathic Medicine."

TUNBRIDGE WELLS BRANCH, PHARMACEUTICAL SOCIETY, Kent and Sussex hospital, Mount Ephraim, Tunbridge Wells, at 8 p.m. Extension lecture on "Forensic Pharmacy."

Wednesday, February 13

CHESTERFIELD BRANCH, PHARMACEUTICAL SOCIETY, Station hotel, Chesterfield, at 8 p.m. Mr. H. W. Tomski on "Economics of National Health Service Dispensing."

ENFIELD CHEMISTS' ASSOCIATION, Firs hall, London, N.21, at 8 p.m. Supper dance.

PETERBOROUGH BRANCH, PHARMACEUTICAL SOCIETY, Campbell hotel, Bridge Street, Peterborough, at 8 p.m. Discussion of branch resolutions.

READING BRANCH, PHARMACEUTICAL SOCIETY, Great Western hotel, Reading, at 7 p.m. Annual dinner and dance.

SOUTH SHIELDS PHARMACISTS' ASSOCIATION, Hedworth hall, Dean Road, South Shields, at 7.30 p.m. Annual dinner and dance.

SWANSEA AND WEST GLAMORGAN BRANCH, PHARMACEUTICAL SOCIETY, Dragon hotel, Swansea, at 8 p.m. Cocktail party.

Thursday, February 14

DURHAM COUNTY BRANCH, PHARMACEUTICAL SOCIETY, Three Tuns hotel, New Elvet, Durham City, at 7.45 p.m. Talk and demonstration by Mr. J. Falkous (Max Factor, Ltd.).

GLASGOW AND WEST OF SCOTLAND BRANCH, PHARMACEUTICAL SOCIETY, Students' Union, Royal College of Science and Technology, John Street, Glasgow, C.1, at 7.45 p.m. Dr. F. E. Camps on "Poisoning—Accident, Suicide or Murder?" (illustrated).

INDUSTRIAL WELFARE SOCIETY, Connaught rooms, Great Queen Street, London, W.C.2, at 10 a.m. One-day conference on "New Legislation for Offices and Shops."

THAMES VALLEY PHARMACISTS' ASSOCIATION, Kingston hotel, Kingston-upon-Thames, at 7.45 p.m. National Pharmaceutical Union annual meeting. Mr. J. A. McIvor on "Marketing Policy."

ROYAL SOCIETY, Burlington House, Piccadilly, London, W.1, at 4.30 p.m. Miss Honor B. Fell, F.R.S., on "The Rôle of Membrane Systems in the Response of Cells to Some Chemical Agents."

UNIVERSITY OF LONDON, LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, Keppel Street, London, W.C.1, at 5.30 p.m. Dr. Hannah Steinberg on "Measuring Effects of Drugs upon Behaviour."

Friday, February 15

BIRKENHEAD AND WIRRAL PHARMACISTS' ASSOCIATION, Wellington hotel, Liscard, at 8 p.m. Dr. Mitchell on "A Journey Through Australasia and U.S.A." (illustrated).

BOURNEMOUTH BRANCH, NATIONAL PHARMACEUTICAL UNION, South Western hotel, Central station, Bournemouth, at 7.30 p.m. Speaker: Mr. B. M. Rusling.

EDINBURGH AND SOUTH-EASTERN SCOTTISH BRANCH, PHARMACEUTICAL SOCIETY, 36 York Place, at 7.45 p.m. Dr. H. P. Tait (principal medical officer, Edinburgh Corporation Child Welfare Service) on "Medicine and Pharmacy in Caricature and Cartoon" (illustrated).

LIVERPOOL BRANCH, GUILD OF PUBLIC PHARMACISTS, Women's hospital, Catharine Street, Liverpool, 8, at 6.30 p.m. Mr. N. W. Blacow (chief pharmacist, General Infirmary, Leeds), on "The Leeds Poisons Information Centre."

SOUTH-WEST LONDON CHEMISTS' ASSOCIATION, Lambeth town hall, at 7.45 p.m. Professor G. E. Trease on "Pharmacy in the Middle Ages" (illustrated).

UNIVERSITY OF LONDON, POST-GRADUATE MEDICAL SCHOOL OF LONDON, Du Cane Road, London, W.12, at 4 p.m. Dr. D. R. Laurence "The Problem of the First Clinical Trial of a Drug."

COMMERCIAL TELEVISION

Figures in these columns represent number of appearances of the "spot" during the week.

February 17-23	London	Midland	North	Scotland	Wales	South	N.E.	Anglia	Ulster	Westward	Border	Grampian	Eireann	Channel Is.	W.&N.Wales
4-way cold tablets	—	1	3	1	2	1	2	2	4	1	2	2	—	1	4
Actifs capsules	—	—	3	—	—	—	4	—	—	—	—	—	—	—	—
Alka-Seltzer	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
Anadin	4	4	1	5	5	2	4	1	2	1	1	1	—	—	—
Askit	—	—	—	13	—	—	—	—	—	—	7	6	—	—	—
Aspro	2	2	2	2	3	1	2	4	—	1	1	—	—	3	—
Atrixo	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Beecham powders	4	4	6	2	4	5	5	4	5	5	5	4	—	4	—
Bisodol	—	—	—	—	—	—	—	—	5	—	—	—	—	—	—
Bristow's lanolin shampoo	2	2	1	2	—	1	—	1	—	—	2	—	—	—	—
Brylereem	3	4	3	3	3	3	3	4	4	4	2	3	—	—	—
Christy's skin emulsion	3	—	2	4	4	4	—	4	—	—	—	—	—	—	—
Coldrex	—	1	1	1	—	1	1	—	1	—	—	—	—	—	—
Cutieura	—	—	2	2	—	—	2	—	2	—	—	—	—	—	—
Delrosa syrup	2	2	—	2	2	2	2	1	2	2	2	2	—	—	—
Dentu-ereme	2	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Dinneford's compound magnesia	1	—	1	—	1	1	1	1	—	—	—	—	—	—	—
Eno Fruit Salt	3	1	—	—	2	1	—	4	3	—	—	—	—	—	—
Euthymol tooth-paste	—	1	—	1	2	1	1	1	2	1	2	2	—	2	1
Fibrosine	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Fynnon salt	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—
Germolene	1	1	—	1	1	1	1	1	—	—	—	1	—	—	—
Goddards cream and embrocation	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Go Gay hair spray	3	3	3	3	3	3	3	—	3	—	—	—	—	—	—
Gon tablets	1	1	1	1	—	—	—	—	1	—	—	—	1	—	—
Kleenex	3	3	3	3	2	2	4	2	3	4	2	3	—	—	—
Loxene shampoo	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Milk of Magnesia tablets	2	1	1	1	2	2	2	2	2	2	2	2	—	2	1
Penetrol inhalant	1	—	—	—	—	—	2	2	—	—	—	—	—	—	—
Phensie	4	5	5	3	6	6	6	5	6	6	4	—	—	—	—
Phyllosan	2	2	2	3	3	3	3	3	—	—	—	—	—	—	—
Radox bath salts	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rinstead pastilles	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sanatogen tonic wine	2	2	2	2	2	2	2	2	2	2	2	2	—	2	—
Setlers	—	3	—	1	—	—	—	1	—	1	—	—	—	—	—
Venos	2	—	2	2	1	2	2	2	2	2	1	2	—	—	—
VO5 conditioner	1	1	—	1	—	1	—	1	—	—	—	—	—	—	—
shampoo	1	2	2	4	—	1	—	2	—	—	—	—	—	—	—
spray	4	1	2	1	—	3	—	2	—	—	—	—	—	—	—
Get-Set	1	2	2	1	—	1	—	2	—	—	—	—	—	—	—
Yeast Vite	2	2	2	2	1	1	2	2	2	2	2	2	—	—	—
Zestone	3	—	—	—	—	1	—	—	—	—	—	—	—	2	—

PATENTS

COMPLETE SPECIFICATION ACCEPTED
From the " Official Journal (Patents)," January 23

Steroids and the manufacture thereof. Upjohn Co. 920,032.

Pharmaceutical compositions having anti-tubercular action. Laboratories du Docteur Debat, S.A. 920,286.

Pesticides and their preparation. R. J. Geary. 920,524.

Esters having pharmaceutical activity. Rhone-Poulenc, S.A. 920,038.

2 - substituted - 4 - sulphanilamidoquinazolines and process. Mead Johnson & Co. 920,019.

Therapeutic chromone derivative, its production and compositions containing same. Laboratoires Bruneau & Cie. 920,141.

Pyrimidine derivatives and the manufacture thereof. Wellcome Foundation, Ltd. 920,412.

Sulphur containing purine and pteridine compounds. Wellcome Foundation, Ltd. 920,267.

Quaternary ammonium compound and the preparation thereof. Wellcome Foundation, Ltd. 920,127.

Method and apparatus for determining silver content. Ilford, Ltd. 920,356.

Piperazine derivatives. Soc. Industrielle pour la Fabrication des Antibiotiques. 920,173.

Composition and test elements for the detection of glucose. Western Laboratories, Inc. 920,186.

Flavone derivatives and method for their preparation H. Voigt. 920,380.

Preparation of 2-furfurlmercaptopyridine-1-oxides. Chas. Pfizer & Co., Inc. 920,139.

Process for the production of derivatives of hydrogenated pyridones. J. R. Geigy, A.G. 920,140.

Dithiophosphonic acid esters. Farbenfabriken Bayer, A.G. 920,142.

Process for the preparation of L-glutamic acid. Ajinomoto Co., Inc., and Sanraku Distillers Co., Inc. 920,241.

Fermentative preparation of L-glutamic acid. Ajinomoto Co., Inc., and Sanraku Distillers Co., Inc. 920,242.

Production of tetracycline. Chinoin Gyogyszer es Vegyeszeti Termekek Gyara, RT. 920,126.

Penicillins. Beecham Research Laboratories, Ltd. 920,176-77, 920,300.

Nitrogenous organic base and acid addition salts thereof and process for preparing same. Eli Lilly & Co. 920,563.

Piperazine compounds. Lakeside Laboratories, Inc. 920,416.

Pregnane compounds and process for their manufacture. Syntex, S.A. 920,503.

Dexamethasone ester and process for its manufacture. CIBA, Ltd. 920,421.

6-chloro-steroids of the pregnane series and process for the preparation thereof. Syntex, S.A. 920,504.

Production of steroid derivatives. Glaxo Group, Ltd. 920,270.

16-methyl steroids. The British Drug Houses, Ltd. 920,521.

Bis (N.N-dialkylamido) chloro-phenyl and -thiophenyl phosphates. Philips Gloeilampenfabrieken, N.V. 920,117.—

Thiophosphoric esters, their preparation and their uses. Rhone-Poulenc, S.A. 920,420.

Disinfectants and methods of disinfecting. Schuelke & Mayr, G.m.b.H. 920,301.

Carbamic esters. Farbenfabriken Bayer, A.G. 920,462.

Fungicidal and plant growth regulant compositions. United States Rubber Co. 920,569.

Synthetic film materials. Ilford, Ltd. 920,352.

Photographic camera equipped with photo-electric exposure meter. Voigtlander, A.G. 920,255.

Winding and operating means for photographic cameras. Balda-Kamerawerk R. Gruter Komm.-Ges. 920,262.

Photographic or kinematographic cameras. Kodak, Ltd. 920,359.

Methods of increasing fine detail contrast in photographic images. Technicolor Corporation. 920,310.

Apparatus for injecting or ejecting substances into and out of a laboratory animal. Decker Corporation. 920,584.

Surgical needles. R. A. Glasson. 920,341.

Hypodermic syringes and like medicament dispensers. J. Bunyan. 920,549.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each), from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from March 6, 1963.

From the " Official Journal (Patents)," January 30

Method of preparing a potent hemastatic substance. Chugai Seiyaku, K.K. 921,038.

Disinfectant composition. Drug Houses of Australia, Ltd. 920,758.

Extraction of phenols from solution. Gas Council. 920,797.

Alginate derivatives and method for their preparation. Kelco Co. 920,811.

Detection of amines. Albright & Wilson (Mfg.), Ltd. 920,812.

Process for N-methylacridone. Abbott Laboratories. 920,737.

Purification of phenol. Shawinigan Chemicals, Ltd. 920,905.

Purification of phenol. Distillers Co., Ltd. 920,864.

Process for optical resolution of racemic glutamic acid. Ajinomoto Co., Inc. 921,075.

Antibiotic L.A.5937. Lepetit, S.p.A. 920,799.

Production of rifamycin B. Lepetit, S.p.A. 921,045.

Process for the extraction and purification of tetracycline. A.P. Da Luz. 920,865.

Cyclopentanophenanthrene compounds and process for the transformation thereof. Syntex, S.A. 920,638.

Carotenoids and intermediates therefore. National Research Development Corporation. 920,915.

Synthesis of steroids. Olin Mathieson Chemical Corporation. 921,156.

Halogeno-androstenes. CIBA, Ltd. 920,639.

Pregnane-18-acid derivatives and pharmaceutical compositions containing them. CIBA, Ltd., 921,157.

Method of producing testosterone-chloral-hemiacetals and their esters and starting materials therefore. Lovens Kemiske Fabrik Ved A. Kongsted. 920,750.

17α-chlorethynyl androstane derivative. The British Drug Houses, Ltd. 920,869.

Dialkyl phosphorothionic acid derivatives and pesticidal compositions containing them. Murphy Chemical Co., Ltd. 921,121.

Preparations containing bromomethyl derivative of a chlorobicyclic heptene pesticidal especially for combating pests inhabiting store houses. Farbwerke Hoechst, A.G. 920,800.

Phenyl hydrazine derivatives and their use in fungicidal compositions. Farbenfabriken Bayer, A.G. 920,739.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from March 13.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the " Trade Marks Journal," January 30

For plant growth regulants and plant nutrients, being chemical products for use in agriculture, horticulture and forestry (1)

TOP-A-GRO, B833,546, by Fisons Horticulture, Ltd., Felixstowe, Suffolk.

For artificial sweetening agents (1) *and for pharmaceutical preparations and substances for human use, infants' and invalids' foods* (5)

HERMESETAS, 836,662-63, by A.G. Hermes, Zürich, Switzerland.

For cosmetics, non-medicated toilet preparations and preparations for the hair (3)

ACQUA NET, B824,165, by Helene Curtis Industries, Inc., Chicago, Illinois, U.S.A.

For perfumes, essential oils, and aromatic substances for use in the manufacture of perfumes and toilet articles (3)

Device with word BUSH, 833,235, by W. J. Bush & Co., Ltd., London, E.8.

For non-medicated toilet preparations, cosmetic preparations and preparations for the hair; perfumes, dentifrices, soaps, cleaning and polishing preparations and detergents (not for use in industrial or manufacturing processes); and toilet articles (3) *and for small domestic utensils and containers (not of precious metal or coated therewith); combs and sponges and material for cleaning and polishing purposes* (21)

FEM POO, 829,576, 829,575, by C. Mitchell & Co., Ltd., London, E.C.1.

For shampoos (3)

LAK-AWAY, B836,850, by Wright, Layman & Umney, Ltd., London, S.E.1.

For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles (not included in other classes), sachets for use in waving the hair, shampoos, soaps and essential oils (3)

BIO-GELE, 837,781, by Elizabeth of Sweden, Ltd., Kingston, Jamaica.

For all goods (3)

SUNROMIN, 838,627, by Legrant, Cliftonville, Margate, Kent.

For pharmaceutical preparations for human and veterinary use (5)

Device with word LEDERLE, 775,119, by American Cyanamid Co., New York, U.S.A.

For pharmaceutical preparations and substances (5)

ROMORPHAL, 826,514, by Duncan, Flockhart & Co., Ltd., Edinburgh, Scotland. TOLINA, 838,721, by T. J. Smith & Nephew, Ltd., Hull, Yorks.

For cough mixtures (5)

BRONEEL BRAND, 830,166, by John Osborne Morgan, Carmarthen, South Wales.

For pharmaceutical, veterinary and sanitary preparations; infants' and invalids' foods; medical and surgical plasters, and materials prepared for bandaging (5)

LUTEOVIS, 832,604, by Francesco Vismara, S.p.A., Casatenovo (Como), Italy.

For medicated confectionery for the treatment of coughs and colds (5)

TREBOR KOFFS, 833,582, by Robertson & Woodcock, Ltd., Woodford Green, Essex.

For tubular surgical dressings and tubular bandages (5)

ESOTUBE, 834,921, by Southon Laboratories, Ltd., Bexleyheath, Kent.

For pharmaceutical substances and preparations, all for use as appetite suppressants (5)

DEXABROMA, 835,662, by West Pharmaceutical Co., Ltd., Hove, Sussex.

For all goods (5)

ATTS, 836,322, by Bradley & Bliss, Ltd., Reading, Berks. URBIMEGAN, 840,033, DIUGARIL, 840,036, CIMPORIN, 840,039, by C. H. Boehringer Sohn, Ingelheim-on-Rhine, Germany. PLEDGEX, 840,377, by Fletcher, Fletcher & Co., Ltd., London, N.7. BULPPRON, 840,582, FAZYLON, 840,819, by Baywood Chemicals, Ltd., London, W.C.1. RETIPHON, 841,567, by Roche Products, Ltd., Welwyn Garden City, Herts.

For pharmaceutical preparations for human and veterinary use, sanitary substances, medical and surgical plasters, material prepared for bandaging, disinfectants and antiseptics (5)

PARAZOLIDIN, 838,651, by J. R. Geigy, S.A., Basle, Switzerland.

For disinfectants and sterilising agents (5)

BIODENE, 840,531, by Nutrikem, Ltd., Harrogate, Yorks.

For medicated confectionery (5)

BRACKENS, 840,627, by W. R. Brackenbury, Middlesbrough, Yorks.

For pharmaceutical preparations for veterinary use (5)

RUMINON, 840,735, by Takeda Yakuhin Kogyo, K.K., Osaka, Japan.

For preparations for combating plant diseases; preparations for killing weeds and destroying vermin; insecticides, pesticides, fungicides (5)

BAYLETON, 839,150, by Farbenfabriken Bayer, A.G., Leverkusen, Germany.

For machines, apparatus and appliances, all for vibratory massage of the body and parts and fittings (10)

RELAX-A-TRON, 821,967, by Gerald Leslie Grant, Birmingham, 13.

For hot-water bottles, containers for liquids, etc., and gloves for domestic purposes (other than for bottling), all made of rubber, artificial rubber or plastics (21)

Device with word ROTPUNKT, B830,836, by Veb Gummiwerke Rotpunkt, Zeulenroda/Thuringen, Germany.

For brushes, combs, sponges, etc. (21)

HUMEX, 830,903, by Roberts Electrical Co., Ltd., Byfleet, Surrey.

This is the message

Don't let Winter wind and cold get under your skin. Soothe away your family's skin troubles with

Christy's SKIN EMULSION

This is the campaign

A barrage of television advertising throughout February and March.
THE SCHEDULE:
LONDON—seventeen 15 second spots; SOUTH—eighteen 15 second spots; SCOTLAND—eighteen 15 second spots; EAST ANGLIA—twenty-three 15 second spots; WALES & WEST—nineteen 15 second spots; MIDLANDS—eight 4 second spots NORTH—twenty-eight 15 second spots.
PLUS nineteen 30 second participations in top-rated Advertising Magazines! Millions will get the message... millions will want Christy's Skin Emulsion for all the family!

This is the product



STOCK IT!
SELL IT!

Tube 2/4 retail

Small Bottle: 2/4 retail

Large Bottle: 3/11 retail

This is your ORDER FORM

AND BIG BONUS OFFER!

Order NOW, and every order for 1 dozen items will be charged as 11; orders for 40 will be charged as 36.

Please supply on carriage paid terms:

☐ CHRISTY'S EMULSION TUBES
☐ CHRISTY'S 2-OZ. BOTTLES
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AND CHARGE ME BONUS OFFER RATES

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2. Any number of entries may be sent in on condition that each entry is accompanied by an end flap from any size carton of BU-TO.
3. First prize is awarded to the competitor who has, in the opinion of a panel of judges, presented the eight beauty points in their order of importance. All other prizes for the next best entries will be awarded in order of merit. In the event of a tie or ties, the merit of the competitors' reason why beautiful women need BU-TO will be the deciding factor.
4. Entries must be sent in a sealed envelope to: BIOMETICA LTD. (1963 BU-TO Competition) Barnet By-Pass, Boreham Wood, Herts. Closing date for the competition is the 30th September, 1963.
5. All entries will become the property of Biometica Ltd. and cannot be returned. No responsibility can be accepted for entries damaged, delayed, lost or mislaid.

1963 BU-TO COMPETITION

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Which eight of the following twelve points should a Beauty Competition Judge consider? Cross out the four points you think least important and using your skill and judgement number the remaining eight in your order of importance.

	Mark your numbers in this column
Personality	
Walk	
Figure	
Proportion	
Teeth	
Legs	
Hair	
Face	
Complexion	
Smile	
Costume	
Eyes	

Additionally, complete this sentence using not more than ten of your own words. "Beautiful women need BU-TO, Rose Scented Hair Removing Cream because

_____

_____

_____

I agree to abide by the rules of the 1963 BU-TO Competition and by the decision of the panel of experts set up to judge it. I agree their decision is final and legally binding.

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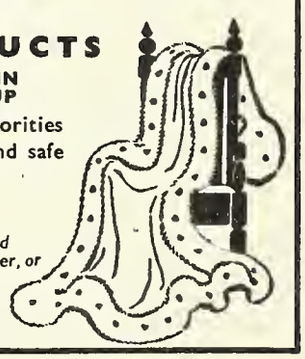
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RIDDOVYDRIN ELIXIR

A NEW PREPARATION SPECIALLY COMPOUNDED TO MEET WITH THE NECESSITY OF A POTENT SYRUP TO RELIEVE ALL FORMS OF COUGHS ASSOCIATED WITH:—

ASTHMA, BRONCHITIS and INFLUENZA

CONTAINING VITAMIN C

ONE SIZE ONLY — 3oz. CARTONED PANEL

UNSUITABLE FOR CHILDREN UNDER 14

RIDDELL PRODUCTS LIMITED

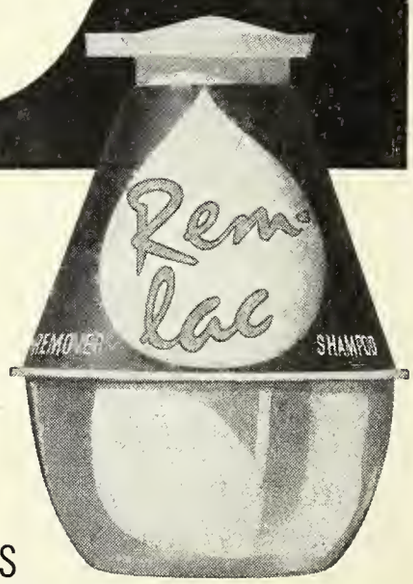
RIDDELL HOUSE · 10-14 DUNBRIDGE STREET · LONDON, E.2

AND AT MANCHESTER PHONE: SHO 7254-5-6

New Rem-lac

does what no ordinary shampoo can do
LATHERS AWAY EVERY TRACE OF LACQUER AND HAIRSPRAY





If you sell hair lacquer you'll sell REM-LAC lacquer-removing shampoo again and again

Already a success with hairdressers, Rem-lac lacquer-removing shampoo will make an immediate appeal to any woman who uses lacquer on her hair. Ordinary shampoos can't touch the lacquer, which left in, dries and dulls the hair. A special ingredient in REM-LAC gently floats out every trace of it. This way the hair is not only as clean as any good shampoo can make it. It is really soft and supple again, ready to take a beautiful set.

STRONG LAUNCHING CAMPAIGN OPENS MARCH with advertisements in **WOMAN WOMAN'S OWN HONEY TRUE ROMANCES TRUE STORY BOYFRIEND MIRABELLE/MARTY MARILYN VALENTINE ROXY TEEN**—*and more advertising to follow.*

EYE-CATCHING NEW BOTTLE RETAILS AT 2/6 FOR 3-4 SHAMPOOS

Order now from your wholesaler.

Whitecroft (Lydney) Ltd., Whitecroft, Lydney, Glos.

H.G.P.740

ICI

NEW LOWER COST TOPICAL CORTICOID

Synandone

TRADE MARK

FLUOCINOLONE ACETONIDE 0.01%

More effective, less expensive than Hydrocortisone

Efficiency-with-economy
Ideal for maintenance therapy

ALSO AVAILABLE

Synandone-N TRADE MARK

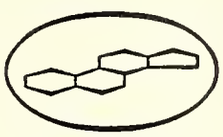
Fluocinolone Acetonide 0.01% with Neomycin Sulphate B.P. 0.5%

Combines topical corticoid with local anti-bacterial action

Presentation:

'SYNANDONE' Cream and Ointment 15 gm. Tubes Basic N.H.S. Cost 6/-

'SYNANDONE'-N Cream and Ointment 15 gm. Tubes Basic N.H.S. Cost 6/3



A PRODUCT OF SYNTEX CORPORATION

Made in Great Britain by

IMPERIAL CHEMICAL INDUSTRIES LIMITED

Ph.286 PHARMACEUTICALS DIVISION WILMSLOW CHESHIRE

"COLD DISCS"

The TRIPLE ACTION treatment for common colds

influenza, chills and headaches arising from these infections

FOIL PACKED · MOST ATTRACTIVE PRESENTATION

showouters of one dozen cartons

If you are unfamiliar with "COLD DISCS" please write to us for samples. Excellent terms.

A COX PRODUCT

ARTHUR H. COX & CO. LTD BRIGHTON SUSSEX



Surface · ANALGESIC HEALING OINTMENT

Indicated for the treatment of inflammatory conditions of the oral mucosa

In tubes 6 grm. RETAIL PRICE **6/3 per tube inc. P.T.**

(paid on importation) less 33⅓% Retail Discount.

MANUFACTURED BY

KREUSSLER & CO · WIESBADEN · GERMANY

Sole Distributors:- **COURTIN LTD**

SURREY HOUSE · CHURCH ST · LEATHERHEAD · SURREY

LEATHERHEAD 4943.

KODACOLOR · EKTACHROME · GEVACOLOR
FERRANIACOLOR · AGFACOLOR · ILFOCOLOR

THE FINEST NAME IN COLOUR PROCESSING

FAST RETURN SERVICE
For Developing and Enprinting of Colour Negative Films and Reversal Films.

TRANSCOLOR
Reversal enprints and Large enprints from all transparencies up to $2\frac{1}{4} \times 3\frac{1}{4}$ ins.

MINIPRINTS
are available from 18 x 24 mm. and 24 x 36 mm. formats.

PROCESSED BY ... COLOUR LABORATORY

HAMILTON TAIT LTD

COLOUR PROCESSING LABORATORY

PENICUIK, MIDLOTHIAN · TEL: PENICUIK 474 (2 LINES)

RE-SALE PRICE MAINTENANCE

In the High Court, on 11th January, 1963

THE PHILLIPS, SCOTT & TURNER COMPANY

were granted an injunction with costs against J. MINDEL LTD., 4 Broad Street Place, E.C.2 restraining the defendants from selling by retail any of the articles manufactured or distributed by the plaintiffs below the current fixed price.

It is the policy of The Phillips, Scott & Turner Company to protect the prices at which their products are sold to the public, thus ensuring fair profit margins to the trade and high quality merchandise at fair prices to the public.

B

PHILIPS in The People

with its 15½ million weekly readership

means big business for you in 1963!

HERE'S THE FIRST OF 26 WHOLE-PAGE ADS. FEATURING PHILIPS "FAMILY PAGE" ...TO APPEAR IN "THE PEOPLE" EVERY OTHER WEEK THROUGHOUT THE YEAR



Philips Campaign in The People is the largest sustained newspaper campaign ever. Featuring the whole range of Philips consumer products—including Health Lamps, Shavers, etc.—it provides massive support for Philips Stockists everywhere ■ Philips chose The People because it has full family acceptance; and because it delivers the all-important middle-mass market at the lowest basic cost of all mass-sale Sundays ■ **Keep an eye on The People, the really big medium that gets really big results for its advertisers.**

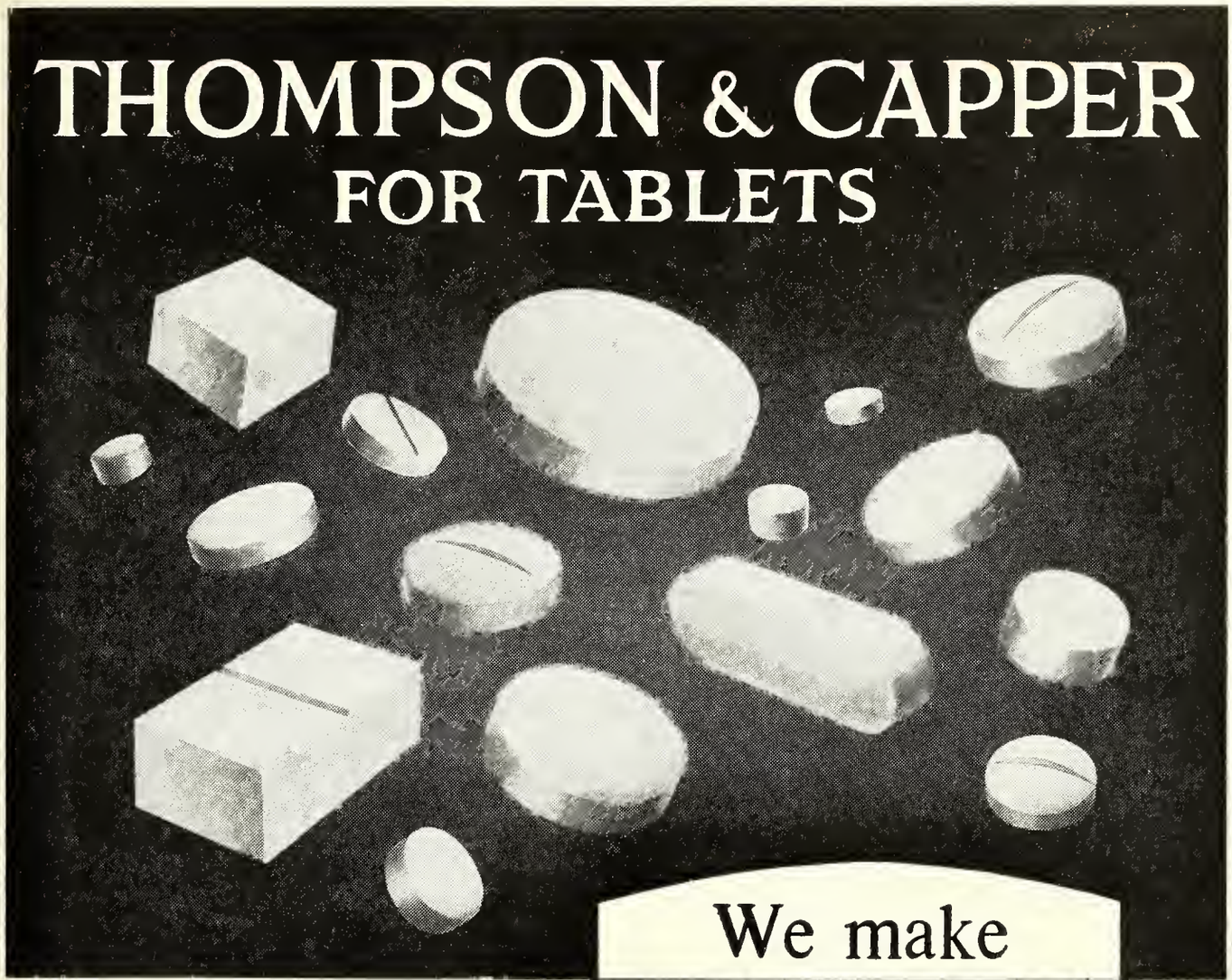
Readership figure from I.P.A. Survey, July, 1961—June, 1962

THE PEOPLE

Britain's most SUCCESSFUL mass-sale Sunday newspaper

RONALD PERKS, ADVERTISEMENT DIRECTOR, **THE PEOPLE**, ACRE HOUSE, 69/76 LONG ACRE, LONDON, W.C.2. TEMPLE BAR 5400

THOMPSON & CAPPER
FOR TABLETS



We make
TABLETS

Very competitive prices and first-class "Own-Name" label service for Packed Tablets—Aspirin, Compound Codein and A.P.C.

. . . millions of them, in hundreds of different shapes and weights, but within each specified tablet the ingredients and quality remain absolutely constant.

If you require Official Tablets, or your own product in tablet form, Thompson & Capper provide an excellent service.

Whatever your needs in the way of tablets, you can depend on Thompson & Capper.

THOMPSON & CAPPER LTD.

MANUFACTURING CHEMISTS,
SPEKE, LIVERPOOL, 24

Telephone: Hunts Cross 1321

NICHOLAS (N) PRODUCTS

TURN OVER FAST···
OVER AND OVER AND OVER AGAIN
···SO SHOW···
AND SELL THEM!

Nicholas Products are lines that move fast—*faster* ***fastest.*** Each and every one is formulated to satisfy a known ***big*** demand ***better.*** They're priced right for the public and yield you better margins. They are ***consistent*** top quality, produced under strict control, in one of the world's most modern factories. They are strongly supported with consumer advertising, skilfully planned and boldly placed. You have confidence in them, the public has confidence in them. Put them where they'll be seen and they'll be sold. *Sold soon.* ***Sold profitably.***

NICHOLAS (N) PRODUCTS INCLUDE

PHARMACEUTICALS

ASPRO*	KRUSCHEN
RENNIES*	BRONCHIPAX
KWELLS*	HEMOTABS

HOUSEHOLD LINES

LIFEGUARD DIP* WAFT

TOILETRIES

RADOX*	TRU-GEL
LEMSKIN	SWAN LAKE
SHAVEX	

**These are brand leaders in their product groups.*

NICHOLAS (N) PRODUCTS

FOR NATIONAL ADVERTISING

Nicholas Products are advertised to your customers with tested and proven appeals on a national basis. Full scale Press and TV is behind many of them. The Right Messages about them are delivered at the Right Time in the Right Media. Link up with the advertising. Put Nicholas Products where they will be seen and recognised as fulfilling a need.

NICHOLAS (N) PRODUCTS

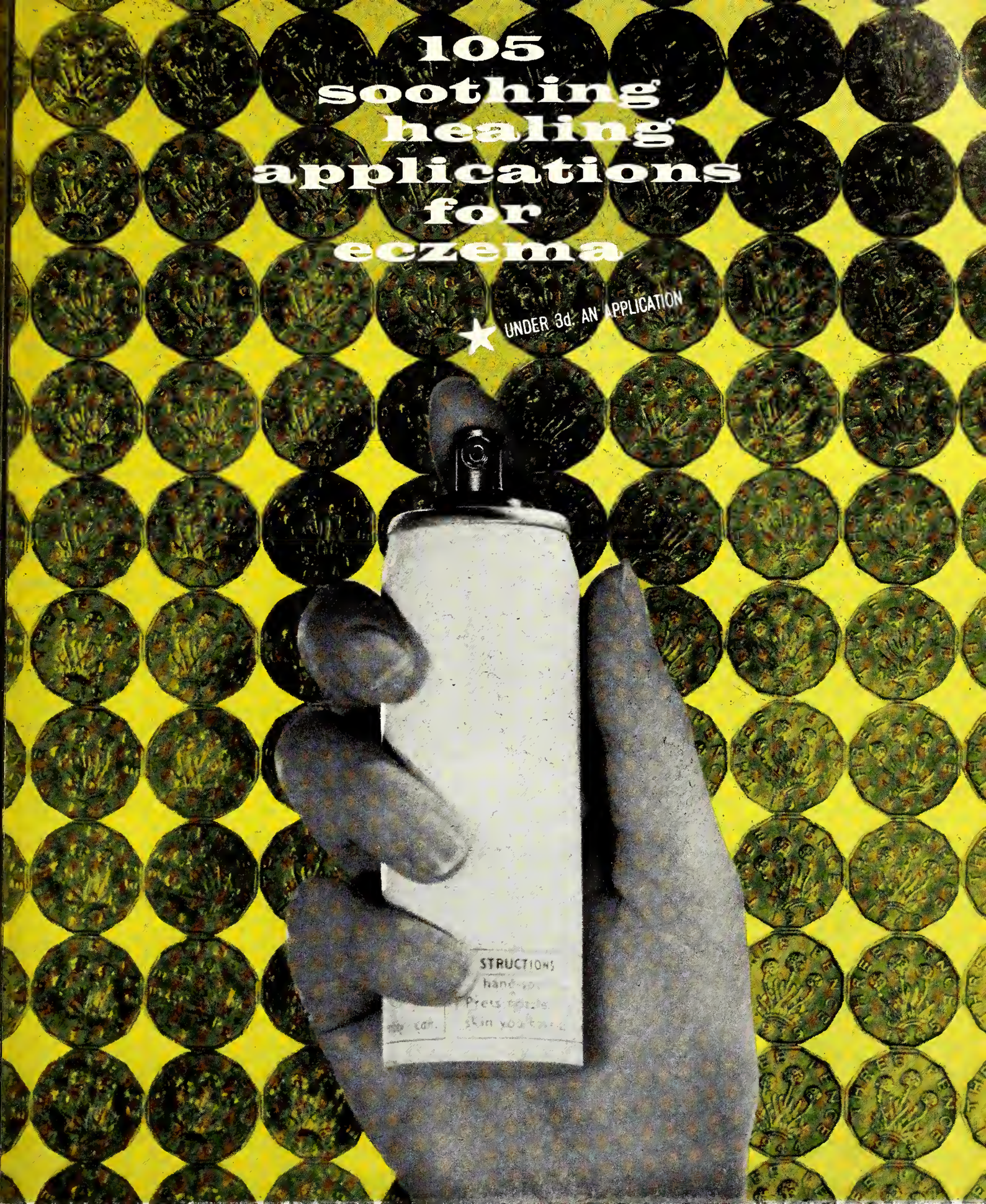
FOR NEWS

Your Nicholas Products representative will bring you news of new products, new advertising and promotion plans, new point-of-sale aids, display bonuses and stock bonuses. Please see him every time he calls. He will *never* waste your time.

NICHOLAS PRODUCTS LTD

225 BATH ROAD, SLOUGH, BUCKS. Tel: Slough 23971





all cases I observed a
rprisingly prompt soothing
the itch and regression
inflammation, which in
e majority of cases was
lowed by rapid healing."[1]

[1] *Z. Haut-u. Geschl.-Kr.*, 1961, **30**, 104.

Terra-Cortril* Spray

brand of oxytetracycline and hydrocortisone

*Trade Mark

available in 1 fl. oz. and 2 fl. oz. packs

Pfizer SCIENCE FOR THE WORLD'S WELL-BEING · PFIZER LTD · SANDWICH · KENT · PF537/11841

Salvelox

friendly

with the wound-pad

FOR INTRODUCTION INTO

LONDON • SOUTHERN

AND FURTHER SUPPORT FOR **MIDLANDS •**

* ***Commencing***



massive TELEVISION support

& ANGLIA T.V. AREAS

SOUTH WALES · WEST & WESTWARD

MARCH *and throughout the summer*

* Hygienically and individually wrapped in 3 clever sizes
* WATERFAST C.D. Plast sticking firmly even in water
* Thin, flexible as skin itself
* Air conditioned pad impregnated with deep-healing Antiseptic
* Unique Wound Friendly Pad will not stick to the scab.
* ***Will not fray.***

1/- AND **2/-** UNITS

Effective POINT OF SALE MATERIAL

* *Window stickers*
* *Top selling display units*
* *Display cards etc.,*

BIGGER AND BETTER PLASTER *PROFITS*

BE PREPARED! ORDER 'SALVELOX' NOW! & DISPLAY 'SALVELOX' WELL

Salvelox

THE MODERN PLASTER

WHITECROFT (LYDNEY) LTD., WHITECROFT, GLOS.

CUTIPEN CUTICLE REMOVER NUTRINAIL FOR BRITTLE NAILS

Cutipen and Nutrinail go all-out for sales

These two unique lines are heading for lively demand from now on. Recently acquired by Foster-McClellan Products Ltd., they will forge ahead with a gay new wrapper, bright display carton, and a big advertising campaign.
More and more women from teenage upwards, will be trying Cutipen and Nutrinail . . . and repeating with the low priced refill tubes.

Extensive Advertising in
WOMAN'S OWN, WOMAN, WOMAN'S REALM
and leading beauty and fashion magazines





WATCH FOR BONUS OFFER

coming by post to all chemists

Details will reach you in a few days — how to get TWO PENS FREE (one Cutipen, one Nutrinail), for sale or personal use as you wish. Get to know these attractive lines through this bonus offer.

New Prices – from now on:

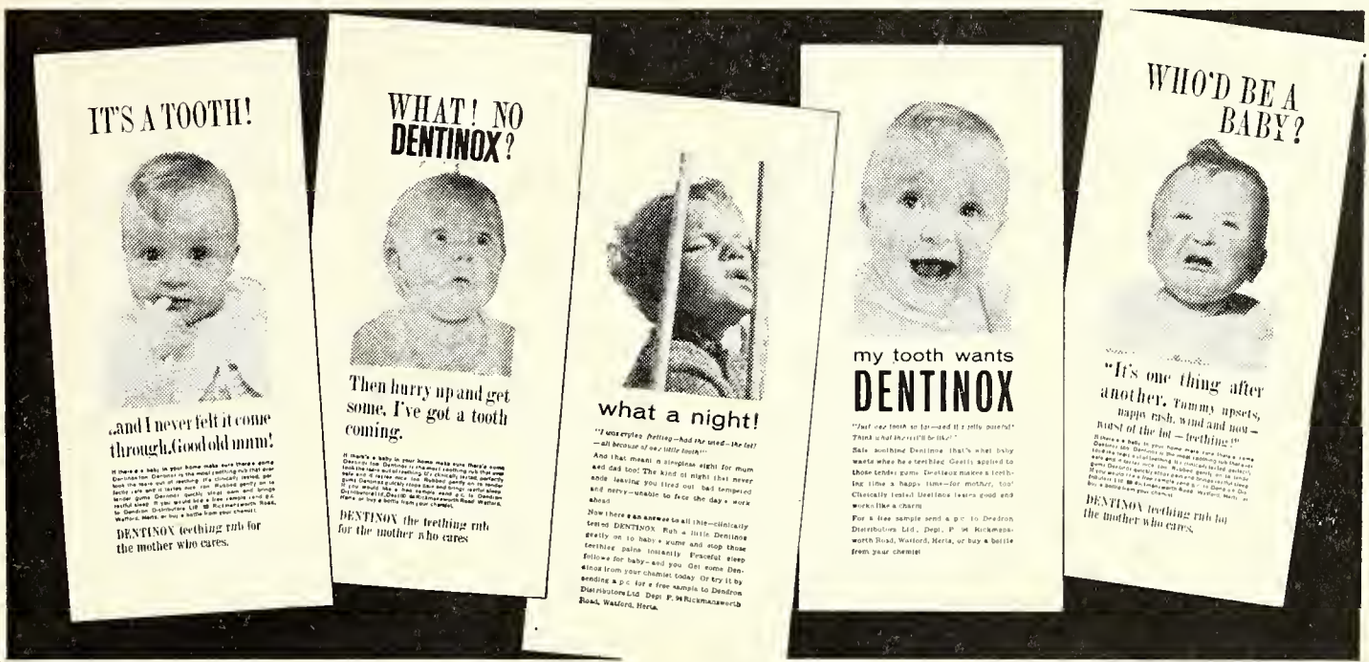
	Standard Trade Price (doz)	P. Tax (doz)	I.R.P. (per unit)
Cutipen, complete	25/8	6/5	3/9
Refills	15/4	3/10	2/3
Nutrinail, complete	29/-	7/3	4/3
Refills	17/-	4/3	2/6

Display
CUTIPEN and NUTRINAIL
and get your share
of increased sales.

FOSTER-McCLELLAN PRODUCTS LIMITED
Cornwall Road, Hatch End, Middlesex. Tel: Hatch End 1055 & 4050
DOAN'S new BACKACHE PILLS · DOAN'S OINTMENT · BILAX · MENTEX

DENDRON announces

New DENTINOX teething rub campaign



These powerful advertisements in national magazines will rub home the advantages of Dentinox to millions of mothers.

ORDER NOW TO MEET THE DEMAND

Retail 3/9 a bottle. List Price 25/9 per doz + P.T.

SOLE DISTRIBUTORS

Dendron Distributors Ltd, 94 Rickmansworth Rd, Watford, Herts. Tel: 29251

D

County Laboratories' new Call Plan can save you time, make you more profit



Your County representative will, in future, call every 8 weeks instead of every 4 weeks. We believe you will find that this system of less frequent calls will help you. It will save your time in interviewing representatives; you will have a lesser number of orders to place and you will save time in checking and storing deliveries and in accounting

BUT

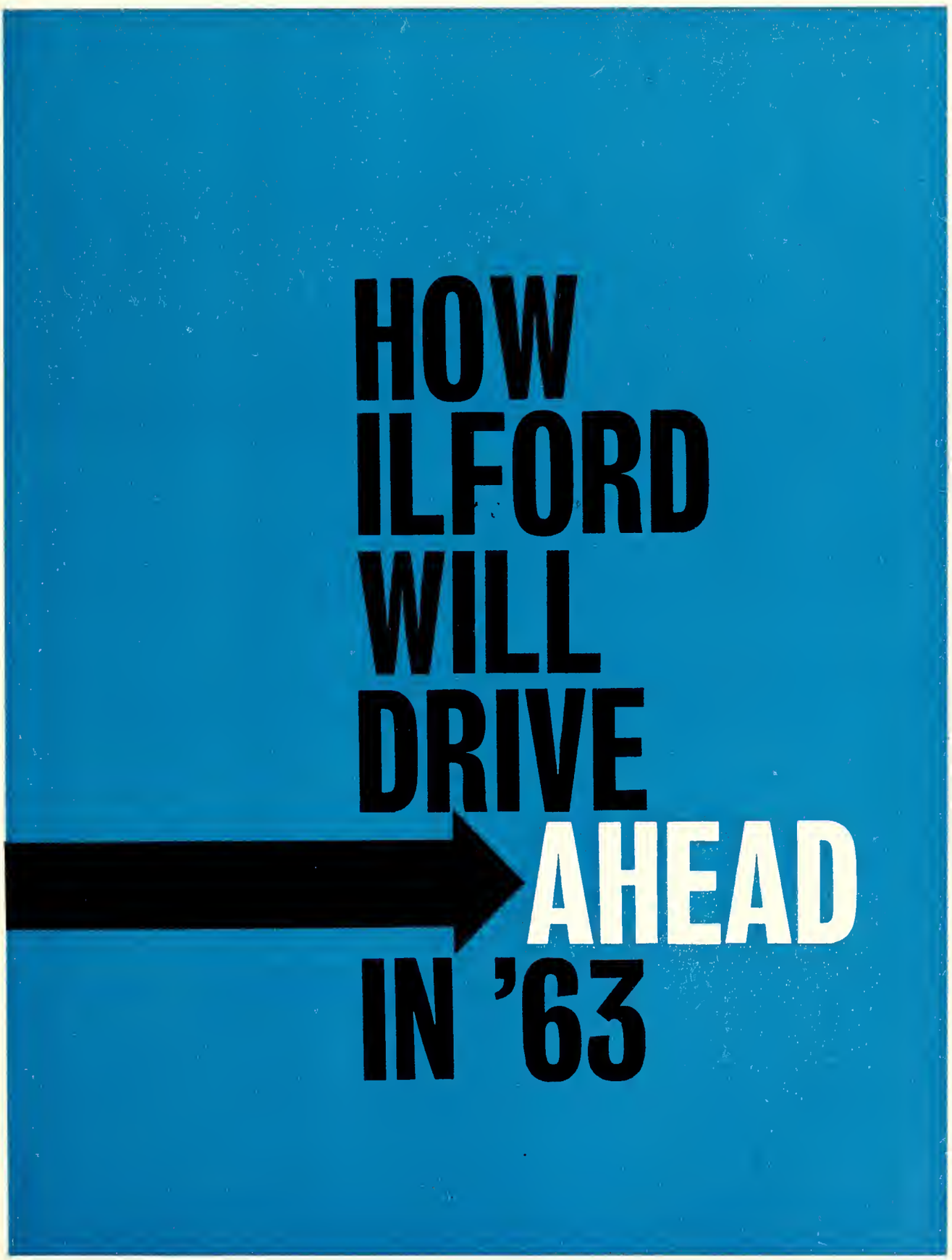
to maintain normal stocks between our representative's calls you will want to order in greater quantities than before—at least twice as much, half as often in fact. This should mean a greater cash profit for you, as you will be able to take better advantage of our generous quantity buying terms. Maintain your stocks of fast-selling County brands:—

BRYLCREEM • MACLEANS • SILVIKRIN • BODY MIST

VOSENE • HILTONE • BRISTOW'S • AMAMI • COUNTESS

COUNTY LABORATORIES LIMITED

Beecham House West, Great West Road, Brentford, Middlesex. Tel: ISLeworth 4171


HOW
ILFORD
WILL
DRIVE
AHEAD
IN '63



Pages and ½ pages

These spaces, powerful and dominating, make up part of the new '63 Ilford campaign. They have been booked in: Daily Express, Daily Telegraph, Sunday Express, Sunday Telegraph and Observer. Running *throughout the summer*. There's a special campaign in the Daily Mirror. Full colour advertising in Weekend, Sunday Times Magazine, Reader's Digest, Town, Punch, Go, Today, Scottish Field, Scotland's Magazine! Special supplements in Sunday Times Magazine and Today! This great Press campaign will reach well over 26 million people!



Display

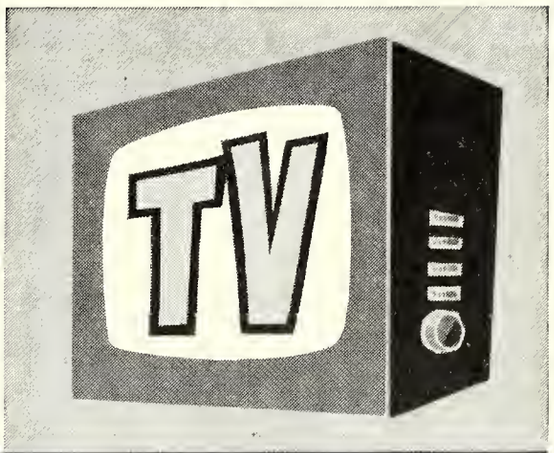
There's going to be a wider range of more dramatic display material for Ilford this year. Camera crowners. Window stickers. Counter cards. Film dispensers. New camera boxes. Special window and counter displays. And there'll be an exciting new 8-page leaflet!

Make the most of them to build sales!

IT'S GOING TO BE A GREAT YEAR FOR ILFORD—AND FOR YOU!

Striking TV

In 1963 there will be a completely new, hard-hitting, Ilford TV campaign featuring 30-sec. Commercials which will reach over 37 million people. And as well as TV, there is the highly successful Ilford cinema film which will be shown in cinemas reaching over 9 million people.

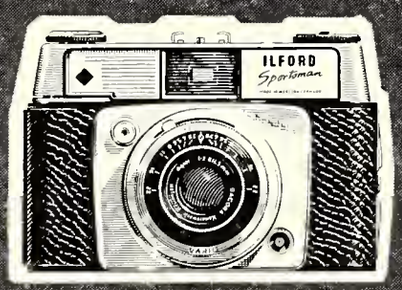


Colour and Cameras

Once again this year, Ilford advertising will concentrate on Ilford colour films—Ilfochrome 32, Ilfocolor and Ilfochrome 8 mm. These profitable lines will be punched across to the public in ad. after ad.

In addition, Ilford give big advertising support to black-and-white film and to cameras—and there's a new camera this year—the Sprite retailing at only 23/6!





Profits

Profits for you. Profits for us. That's what this tremendous 1963 Ilford campaign is going to bring. So make sure you're stocked up to get your full share of this bumper business!

TODAY'S LEADER IN PHOTOGRAPHY **ILFORD** naturally!

L187/X/63

An important announcement regarding POLAROID LAND CAMERAS

POLAROID CORPORATION, CAMBRIDGE, MASS. U.S.A.

are pleased to announce the formation and opening of their newest subsidiary

POLAROID (U.K.) LIMITED

BY AGREEMENT BETWEEN POLAROID CORPORATION, JOHNSONS OF HENDON LTD. AND POLAROID (U.K.) LIMITED

as from 1st Jan. 1963

POLAROID PHOTOGRAPHIC EQUIPMENT*

'Polaroid' registered trademark

will be distributed throughout the United Kingdom by

POLAROID (U.K.) LIMITED · QUEENSWAY HOUSE
QUEENSWAY · HATFIELD · HERTS
HATFIELD 5251/5

* *Johnsons of Hendon Ltd. will remain responsible for the U.K. distribution of Polaroid photographic equipment to Professional and Government users*

ADVERTISING CAMPAIGN FOR *Stratton* COMPACTS

BREAKS IN MARCH

Big spaces in National Press and top magazines for Stratton Compacts tie in with gift giving occasions, Mother's Day, Easter, Spring Weddings.

Whole double columns in three national dailies:
DAILY EXPRESS · DAILY MAIL . DAILY TELEGRAPH

Half-page advertisements in the following magazines:
FLAIR · HONEY · SHE · QUEEN · TOWN · IDEAL HOME · EVERYWOMAN

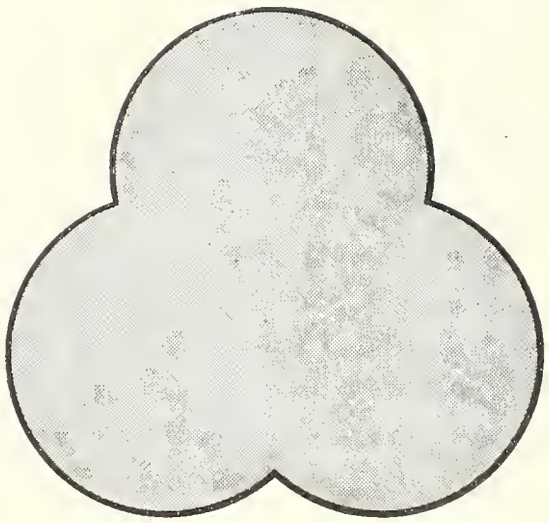
Everyone will see Stratton. Everyone will want Stratton. Take action—order from your usual wholesaler NOW and remember recent purchase tax reductions and an increased retail profit margin.

These are the lines that will be promoted:

945/617	55/617
283/617	65/617
618/MOP	525/617
380/612	940/809
437/ET MED	348/P
380/ET	945/610
526/WW	36/ET

compacts by *Stratton*

LAUGHTON & SONS LTD.,
WARSTOCK ROAD, BIRMINGHAM 14.



Dome has for a number of years in North America concentrated exclusively on the formulation of preparations specifically designed to meet the needs of consultants and practitioners treating skin conditions.

Now, for the first time in the United Kingdom, DOME is applying this accrued specialist knowledge in a new approach to dermatological prescribing, specially designed as a service to the medical and pharmaceutical professions.

In this age of rapid medical advance, with the multitude of products which have appeared as a result of such progress, DOME alone will concentrate on solving the problems of treatment, in terms of prescribing and dispensing in a single field of medicine—the Company's undivided attention is focussed on the furtherance of knowledge and ease of treatment in dermatology.

Dome synonymous with dermatology

Dome

Division of Miles Laboratories Limited Stoke Poges Bucks DM17

Barnet

TOP TWENTY

Angular, Sultry, heavy frame, Barnet back up the all powerful trend with these up-to-the-season high style sunglasses. Each available in bright display boxes of a dozen, these models have been very carefully composed into two assortments supplied with FREE DISPENSERS. Top value, clearly priced, the first rays of sunshine will sell them for you.

Ask your wholesaler for full details.





TOP TWENTY SUNGLASSES

No. 8 ASSORTMENT.

One dozen of each of six models giving both a range of styles and prices from 3/6 to 5/11 each. The small new rotating stand (shown above) displays twenty sunglasses.

The six dozen complete with Free stand
Costs Retailer £11. 15. 4.
Retailers' Turnover £17. 13. 0.

HIGH STYLE SUNGLASSES

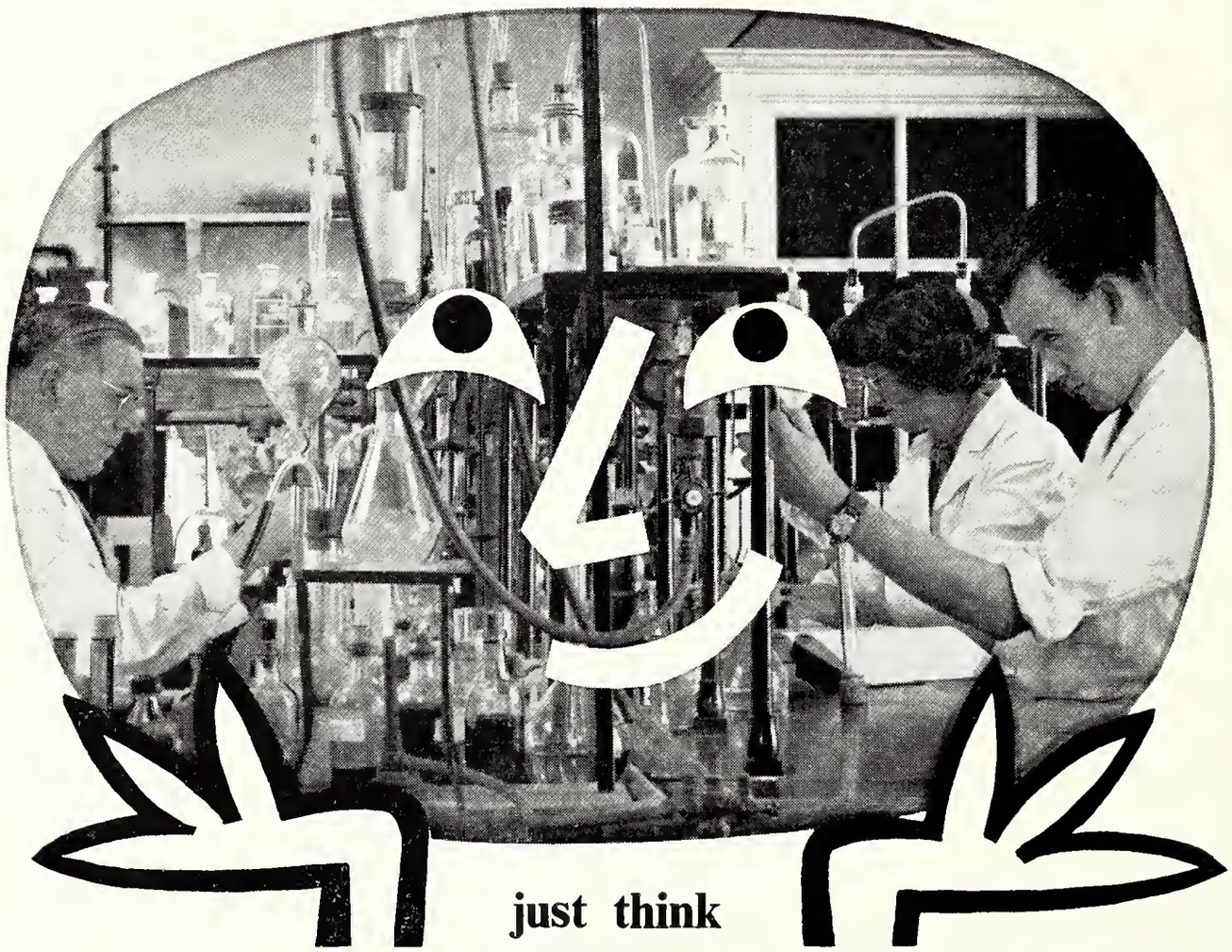
No. 9 ASSORTMENT.

Half-dozen each of six styles shown left making a low outlay assortment of 3 dozen in all. These top quality models range from 5/- to 10/6 retail with this striking FREE display.

The three dozen complete with FREE stand
Costs Retailer £8. 11. 8.
Retailers' Turnover £12. 17. 6.

E. R. HOLLOWAY SALES LTD., Bessemer Rd., Welwyn Garden City. Tel: Wel Gar 21111

You share Ransom's reputation when they do your processing



of the advantages of sharing Ransom's enviable reputation. You can if you make use of the Ransom Trade Processing Service. When Ransoms make your products for you, all the benefits of Ransom's vast experience are automatically incorporated into them. Your products will be processed to the same meticulous standards adopted for Ransom's own drugs and galenicals. Ransoms can produce bulk galenicals for you—from *their* raw materials or *your own* . . . they can manufacture your proprietary products from start to finish—and all in strict confidence. When Ransoms do your trade processing, you save time, trouble and you conserve your capital.

ESTABLISHED 1846

Trade inquiries invited — just ring HITCHIN 4575.

William Ransom & Son Ltd

HITCHIN · HERTFORDSHIRE · ENGLAND



prescription for boxes

Since 1839, when John Bradbury Robinson, himself a chemist, commenced making pill boxes at Chesterfield, his enterprise has grown into a world-famed organization. Today Robinson's range of Standard Round boxes for the chemist covers every dispensing requirement to round off "just what the doctor ordered".

Ask your wholesaler for details.

REGD. TRADE MARK

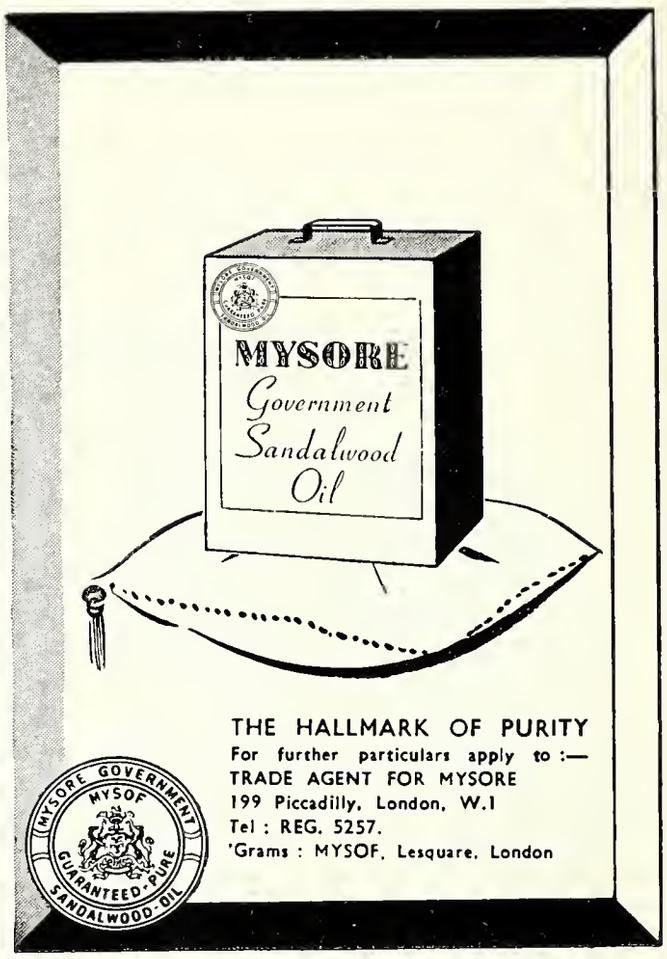
Robinsons *of Chesterfield*

ROBINSON AND SONS LIMITED WHEATBRIDGE MILLS CHESTERFIELD

Telegrams: "Boxes" Chesterfield. Telephone: 2105, 11 lines.

London Office : King's Bourne House, 229/231 High Holborn, London, W.C.1. Telegrams: 'Omnibox', Holb. London. Telephone: Holborn 6383.

For all
ETHICALS
Smith & Hill
service
Is second to None
NOTTINGHAM
SHEFFIELD
DONCASTER
"Three houses combining to give an unrivalled service to pharmacists in the North Midlands"
Smith & Hill (Chemists) LTD.
MATILDA STREET, SHEFFIELD 1
Tel. 28383 (5 lines)
S&H
Also CARDINAL WORKS, CARDINAL STREET, NOTTINGHAM, Tel. 54347-8-9
79A URBAN ROAD, HEXTHORPE, DONCASTER, Tel. 55261-2



THE HALLMARK OF PURITY
For further particulars apply to :—
TRADE AGENT FOR MYSORE
199 Piccadilly, London, W.1
Tel : REG. 5257.
'Grams : MYSOF, Lesquare, London



Swinging!

Perhaps it's the weather. Perhaps it's the advertising. Perhaps it's the unique quality of Victory V. But every year, summer sales of Victory V come closer to winter's. And winter sales just go up and up. Join in the year-round selling spree now. Order from your wholesaler or write to us for samples and terms.

Victory V
LOZENGES
- and gums in the new roll packs
VICTORY FACTORIES · NELSON · LANCASHIRE

Restrictive Trade Practices Act 1956
FIXED RETAIL PRICES 2/- –3/9 Including Purchase Tax
The maintenance of these prices is a condition of sale
Dr. J. Collis Browne's
CHLORODYNE
SALE RESTRICTED
TO REGISTERED CHEMISTS
Pharmacy and Poisons Act 1933
PURCHASER'S SIGNATURE
NOT REQUIRED
Sole Proprietors—
J. T. DAVENPORT LTD.
Union Street, London, S.E.1
FOR OVER 100 YEARS
P.A.T.A.

Now MORHUSEPT for NAPPY RASH

A new approach to traditional treatment with introductory **BONUS OFFER**

Morhusept germicidal cream is an elegant new formulation of specially treated Cod Liver Oil and Cetrimide B.P. The cream is free from offensive odour, stickiness and greasiness, and is delicately rose-perfumed. Morhusept is being actively promoted to the Nursing Profession, Women's Health Officers and Infant Welfare Workers throughout the country. Packed in 40 gramme tubes to sell at 3/6 (including Purchase Tax 6d.). Trade price 24/- per dozen.

INTRODUCTORY BONUS OFFER—*One tube free*
(12 tubes charged as 11) NO PURCHASE TAX

PRIORY LABORATORIES LTD
PYRAMID WORKS · WEST DRAYTON · MIDDLESEX

Telephone :
West Drayton 3011

NUCTA EGG AND LEMON SHAMPOO

IN THE EVER POPULAR

1/- TUB

SUFFICIENT FOR TWO OR THREE SHAMPOOS

6/8 per dozen (plus tax)

ALSO AVAILABLE IN THE FAMILIAR JARS TO SELL AT **2/8** AND IN THE **3/11** FAMILY SIZE TUBE.

From your wholesaler or direct



STEWART, GOODALL & DUNLOP LTD. 121a PRINCES STREET, EDINBURGH

GNOME and ADOX

- ENLARGERS
- PROJECTORS
- PHOTOGRAPHIC ACCESSORIES
- CAMERAS
- COLOUR FILMS
- BLACK AND WHITE FILMS

Order summer stocks NOW AND DEFER PAYMENTS UNTIL JUNE-JULY AND AUGUST

No deposit with order

WRITE FOR FULL DETAILS

GNOME PHOTOGRAPHIC PRODUCTS LIMITED
CAERPHILLY RD., CARDIFF

Stock up with . . .



SYNFOAM SUPER SPONGE

HONEYCOMB . ALL PURPOSE
FULLY SYNTHETIC

STANDARD SIZE Retail Price 2/10
LARGE SIZE Retail Price 3/9
GIANT SIZE Retail Price 6/0
USUAL DISCOUNTS

Each Sponge in a 3-coloured transparent sleeve. Each doz. in 4-coloured show carton. 12doz. in cardboard box.

Obtainable from YOUR USUAL WHOLESALER or contact :—

FLETCHER & FARLOW LTD.
Finsbury Court, Finsbury Pavement,
London, E.C.2 . *Tel : MONarch 6810*

"SYNFOAM SUPER" SELLS ON SIGHT!

Quinine Sulphate B.P. 1953 & 1932

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STEEL SHELVING
HEAVY GAUGE

FREE delivery within 14 days. N. Scotland, Ireland, I.O.M. 10% extra

71" high × 34" wide, 12" deep with 6 shelves as illustrated. C.W.O. or C.O.D. 60/-

Each shelf will hold over 3 cwt. Shelves adjustable every 2". Stove enamelled dark green. White enamel units 50% extra.

Height	Width	Depth	No. of Shelves	Price	Price each 3 or more	Extra Shelves
71"	34"	9"	6	58/-	56/-	7/-
71"	34"	12"	6	60/-	58/-	8/-
71"	34"	15"	6	69/-	67/-	9/6
85"	34"	12"	6	68/-	66/-	8/-
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HANDY DRAWER UNIT
BRAND NEW

42" high, 13" wide, 12" deep, 20 DRAWERS: 5" wide, 3" high, 11½" long. Stove enamelled dark green. Direct from manufacturers. Write now for list of other sizes.

£7.15.0
C.W.O. or C.O.D.



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Dept. C.D., Shawclough Works, Waterfoot, Rossendale, Lancs. ROSsendale 2450
Contractors to H.M. Government and United Kingdom Atomic Energy Authority

Sylvia
SANITARY TOWELS

Perfection in Protection

NATIONAL ADVERTISING



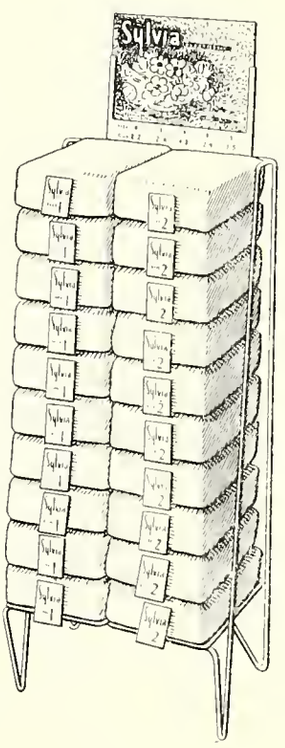
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CUSTOMERS TO YOUR SHOP!

DISPLAY SYLVIA

Millions of women will see these journals advertising Sylvia Towels. More and more of them will be looking for the chemist displaying Sylvia in the elegant stand illustrated here - available to you FREE. Don't miss this business - display Sylvia prominently.
You can be certain of repeat business - Sylvia offer "Perfection in Protection." NOW supplied in attractive patterned bags.

Size	0	1	1	2	3	Maternity	
In Pkts of	12	12	six	12	12	12	
Trade	20/-	21/6	10/11	25/3	31/3	35/9	Doz.
Retail	2/2	2/4	1/2½	2/9	3/5	4/-	Packet



Generous reductions for quantities

Cuxson, Gerrard & Co. Ltd.

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KALIUM *Pet Remedies*



FOR ALL CAGE & AVIARY BIRDS

SCALEX for Scaly-Face. A safe cure, complete with brush. Per bottle 2/6d. retail.

ANTI-CRAMP. Complete with brush. Per bottle 2/- retail.

VIGAMOL. Fertility stimulant and tonic. Tocopherol and codliver oil. Per bottle 1/3, 3/- and 5/- retail.

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NATIONALLY ADVERTISED—generous discounts

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What wonderful news! "Sheerine" will delight so many of our lady customers who need support for Varicose Veins and who are conscious of wearing the conventional type of heavy surgical stockings.
"Sheerine" really are the smartest and most effective surgical stocking on the market today — so for sheer loveliness—supply "Sheerine" Fashioned in ELASTIC NET, NYLON YARN, LASTEX YARN LIGHTWEIGHT NYLON YARN.

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UNITED RUBBER MANUFACTURERS CORPORATION LTD
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Do not disappoint your customers

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Powders and tablets for the safe and speedy relief of headaches, colds, chills, rheumatic and nerve pains.

EX ALL LEADING WHOLESALE HOUSES



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PHOTOGRAPHIC CHEMICALS
SODIUM METABISULPHITE
SODIUM HYPOSULPHITE (Crystals and Anhydrous)
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EPSOM SALTS B.P.
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WILLIAM BLYTHE & CO., LTD.
HOLLAND BANK CHEMICAL WORKS, CHURCH LANCASHIRE
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'DISTIVIT'

oral vitamin B_{12} peptide

helps shorten

convalescence



'DISTIVIT' TABLETS			*Trade prices*
D A	20 mcg.	Tube of 25	2s. 8d.
		Bottle of 100	8s. 8d.
D D B B	100 mcg.	Tube of 25	7s. 6d.
		Bottle of 100	21s. 10d.
		,, ,, 500	100s. 6d.
D D C C	1,000 mcg.	Foil pack of 4	6s. 0d.
		Bottle of 50	55s. 0d.
'DISTIVIT' ELIXIR		Each 3.5 ml. contains 20 mcg. vitamin B_{12} peptide	
		Bottle of 4 fl. oz. (approx. 114 ml.)	3s. 0d.
		,, ,, 40 fl. oz. (approx. 1,136 ml.)	24s. 0d.

DISTA PRODUCTS LTD., Broadway House, The Broadway, Wimbledon, London, S.W.19. **Telephone: LIBerty 6600**

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EMOFORM

Medicated Toothpaste for hypersensitive teeth, and sore and bleeding gums

A surprisingly high proportion of dental patients suffer from hypersensitive teeth, which are mostly due to erosion and recession at the gum margins.

EMOFORM is an effective treatment for hypersensitive teeth, and sore and bleeding gums. It is also a good tooth cleanser.

EMOFORM has achieved a very great success in its first year in Great Britain and thousands of dental surgeons are recommending it to their patients.

EMOFORM IS AVAILABLE ONLY FROM CHEMISTS

EMOFORM retails at 3/11d. per tube and the trade price is 26/8d. plus 6/8d. P.T. per dozen tubes. Virtually all major wholesalers maintain stocks: order now to meet the *rapidly increasing demand.*

WILLOWS FRANCIS LTD *Pharmaceutical Manufacturers since 1751*
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PHARMACEUTICAL MANUFACTURING COMPANY
The Local Anaesthetic Specialists

IMPORTANT ANNOUNCEMENT

Flu Epidemic could be imminent

LATEST reports show that flu is building up throughout the country. We could have a full-scale epidemic on our hands at any moment. This means that, any time now, there could be an abnormal rush for Beecham's Powders — the biggest selling flu remedy. You could be cleared right out of stock before you have time to turn round. It has happened before! So check your stocks of Beecham's Powders *now* and order to the limit, sufficient for any emergency. A small delay could cost you a lot in terms of profits *and* goodwill.



Check your Phensic stocks, too. There's going to be a big demand for this fast-selling analgesic.

ORDER NOW!

BEECHAM'S POWDERS

BEECHAM PROPRIETARY MEDICINES LTD., ST. HELENS, LANCS.

THOVALINE

for:—

BEDSORES

BEDSORES can be prevented by applying **THOVALINE** before the trouble starts but if already in existence will help greatly in healing.

BURNS

BURNS Unique action. **THOVALINE** is self sterile it eliminates pain and is a rapid healer.

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URINE DERMATITIS Excellent healing properties where rash exists and will prevent such trouble occurring if applied beforehand. Offensive odour is eliminated.

Supplies from your usual wholesale house:

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LORNE STREET · HAMILTON · LANARKSHIRE

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The **HAIR ROLLERS** of distinction and popularity

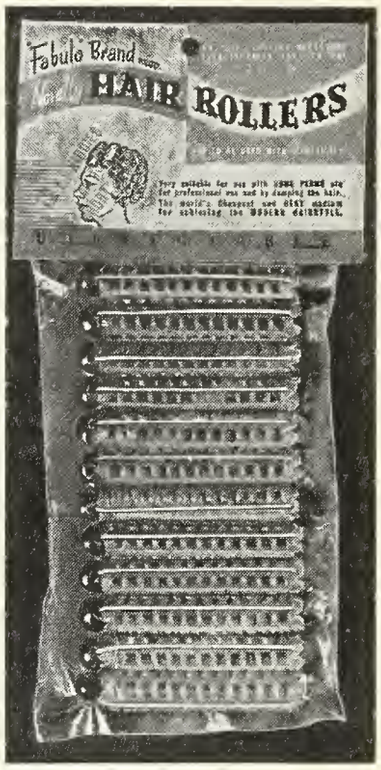
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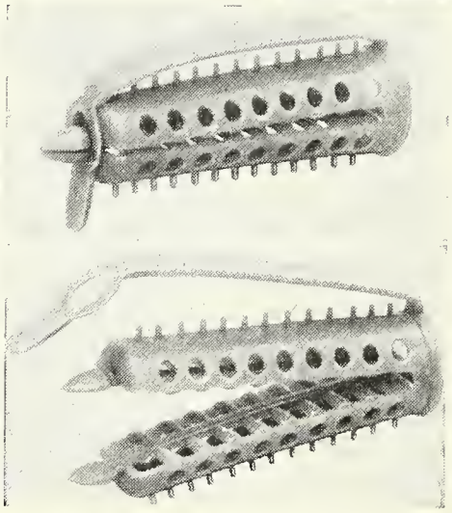
8 sizes with various contents of the packs at the uniform price of 14/8d. + 25% P.T.= total 18/3d. per dozen packets.

Retail

2/4d.

per packet





BOUFFANT CURLERS

½ gross in display carton.

13/8d.+25% P.T. =total 17/-

Retail

4/3d.

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Obtainable from most wholesalers or direct from:

HAETAM LIMITED

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Established 1921 — *Samples on request free* — Phone BLA 3882

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41 ARGYLE SQUARE, KING'S CROSS, W.C.1

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VALUATIONS for all purposes
BUSINESSES urgently required
STOCKTAKING for Income Tax purposes
TRANSFERS without publicity our speciality

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CLASSIFIED ADVERTISEMENTS

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Address Box Number Replies to: **THE CHEMIST AND DRUGGIST, 28 ESSEX ST., STRAND, LONDON, W.C.2**

APPOINTMENTS — 24/- per ¼" s.c. minimum and pro rata. AGENTS — AUCTION SALES — BUSINESSES FOR SALE and WANTED — CLEARANCES and WANTS — CONTRACTS — MISCELLANEOUS — PATENTS — PARTNERSHIPS — PREMISES — PUBLIC and LEGAL NOTICES — SITUATIONS VACANT. Run-on — 4/- per line (minimum 20/-). Semi-display — 24/- per ¼" s.c. minimum. Displayed with border rule, larger type faces and blocks — 60/- per s.c.i. minimum. Reduced rates for one-third, one-half and full pages on application. SITUATIONS WANTED — 6/- per 18 words minimum, then 4d. per word. Use of Box No. — 2/-. Advertisements received by 4 p.m. Tuesday published same week.

PREMISES

PREMISES over pharmacy in centre of large South Coast town, 1,200 sq. ft. suitable for offices. Some very fine rooms fit for showrooms, salon or boardroom. Own separate entrance. Has the amenities of central London without its disadvantages. Pleasant surroundings. Very accessible road, rail, air. Exclusive rental or offers. Box C 5017.

SHOPS TO LET at Earlham Shopping Centre, Norwich; frontages 17-50 ft., depths 50-75 ft., tenants include FINE FARE and other well-known multiples. Joint Sole Agents:—Percy Howes & Co., 3 Cathedral Close, Norwich (23288) and Jones, Lang, Wootton & Sons, 58 St. James's Street, London, S.W.1 (HYDe Park 7151). C 7933

BUSINESSES WANTED

DRUG OR SURGICAL STORES WANTED or suitable premises: E. T. Perks, 16 New Street, Dudley, Worcestershire. Dudley 52368. C 5003

WHOLESALE business required, London or near. Box C 5016.

BUSINESSES FOR DISPOSAL

FOR SALE. Small factory or warehouse with small plot of land adjoining, suit small manufacturing concern or warehouse for distributive centre. Ten miles from centre of industrial England. Apply: W. Smith, Drug Stores, 7 King Street, Alfreton, Derbys. C 5014

WHOLESALE DRUGGIST business for sale in East Lancs area supplying all types of shops within a thirty-mile radius with a full range of proprietary preparations. Turnover £60,000. Write giving banker's reference. Box C 5020.

APPOINTMENTS

CROYDON GENERAL HOSPITAL (200 beds)

Dispensing Assistant

for duties in busy, modern Hospital Pharmacy. Apothecaries' Hall Certificate or previous dispensing experience necessary. Whitley Council salary scale and conditions of service, including payment of £50 p.a. qualification allowance where appropriate.
Applications for PART-TIME appointments also considered; days and times of attendance to be by mutual agreement.
Interested applicants wishing to see over Pharmacy, are requested to contact Chief Pharmacist direct (CRO. 7755).
Application Form obtainable from Group Secretary, General Hospital, London Road, Croydon, Surrey. C 7991

BETHNAL GREEN HOSPITAL, CAMBRIDGE HEATH ROAD, LONDON, E.2

Senior Pharmacist

Modern department approved for training students. Salary scale £810-£1,060 per annum, plus higher qualification allowance and London Weighting.
Please apply Hospital Secretary, giving details of age, training, experience and two names for reference. C 625

BROOKWOOD HOSPITAL, KNAPHILL, WOKING, SURREY

Dispensing Assistant

Applications are invited for the post of Dispensing Assistant. The successful candidate will be required to work under the supervision of the Chief Pharmacist. Residential accommodation (female) available. Excellent Staff Social Club.
Applications giving particulars of age, experience and qualifications, together with the names of two referees, to the Physician Superintendent as soon as possible. C 626

CROYDON GENERAL HOSPITAL (200 beds) Category IV

Senior Pharmacist

Modern Department in busy acute General Hospital. Fully staffed and with up-to-date equipment. Provides full Hospital Pharmaceutical service, including transfusion solutions, ampouling, large range of other sterile products; also considerable manufacturing of specialties—ointments, etc., in addition to routine Pharmaceutical work.
Whitley Council conditions of service and salary scale, £810 p.a. — £1,060 p.a., plus London Weighting of £25 — £55 p.a.
Further information regarding post may be had on direct application to Chief Pharmacist (CRO. 7755).
Application stating qualification, age, and full details of previous experience together with names and addresses of two referees to be sent to: Group Secretary, General Hospital, London Road, Croydon, Surrey. C 7990

LEAVESDEN HOSPITAL, ABBOTS LANGLEY, Near WATFORD, HERTS

Dispensing Assistant

required for duties in Leavesden and Abbots Langley Hospital. Duties will include assistance with clerical work and intending applicants are invited to view the departments by arrangement with the Group Pharmacist prior to interview. Telephone Garston 2222.
Applications stating age, experience and the names of two referees to the Group Secretary, Leavesden Hospital, Abbots Langley, near Watford, Herts. C 7993

MOORFIELDS EYE HOSPITAL

Locum Dispensing Assistant

(Apothecaries' Hall) required immediately for duty at High Holborn branch.
Apply to Chief Pharmacist, Moorfields Eye Hospital, City Road, London, E.C.1. C 7989

MOORFIELDS EYE HOSPITAL

Dispensing Assistant

Applications are invited for the post of Dispensing Assistant (female) at the High Holborn Branch. Preferably with Certificate of Society of Apothecaries or other recognised qualification. Whitley Council salary and conditions of service.
Apply in writing, giving names of two referees, to the Chief Pharmacist, Moorfields Eye Hospital, London, E.C.1. C 7985

NORTH WIRRAL HOSPITAL MANAGEMENT COMMITTEE, MILL LANE, WALLASEY

Pharmacist

in Group Pharmacy serving six hospitals.
Salary £725 rising by annual increments to £970.
Applications stating age, experience, etc., to Hospital Secretary, Victoria Central Hospital Medical Unit, Mill Lane, Wallasey. C 7982

SEAMEN'S GROUP DREADNOUGHT SEAMEN'S HOSPITAL, GREENWICH, S.E.10

Locum Pharmacist

required from 17th to 29th June, from 8th to 20th July, and from 2nd to 14th September. 18 guineas per week plus 17s. 3d. London Weighting and £2 12s. 8d. for 2 late sessions.

and

ALBERT DOCK HOSPITAL, E.16

Locum Pharmacist-in-Charge

required from 25th to 30th March and from 17th to 29th June. £20 9s. 6d. per week plus £1 1s. 1d. London Weighting.
Applications to House Governor, Dreadnought Hospital, Greenwich, S.E.10. C 7980

SOUTHMEAD HOSPITAL, BRISTOL (670 Beds)

Pharmacist

required at Southmead Hospital. This post offers wide experience in modernised department.
Applications stating age, qualifications and experience to be made to the Group Secretary, Southmead Hospital, Westbury-on-Trym, Bristol. C 7995

WILLESDEN GENERAL HOSPITAL, HARLESDEN ROAD, LONDON, N.W.10

Senior Pharmacist

required. Whitley Council conditions of service. Apply quoting age, qualifications and the names of two referees to Hospital Secretary, within 7 days. C 7994

Appointments—Continued

ST. ANDREW'S HOSPITAL, DEVONS ROAD, BOW, E.3

Senior Pharmacist or Pharmacist

required. Whitley Council salary and conditions. Application forms obtainable from the Group Secretary, Bow Group H.M.C., St. Clement's Hospital, Bow Road, E.3. C 7979

THREE COUNTIES HOSPITAL, ARLESEY, BEDFORDSHIRE

Dispensing Assistant

Applications are invited for Dispensing Assistant. Salary and conditions as Whitley Council scale, £425 at age 22 or over, rising to £575 per annum. Accommodation available for single man or woman applicant. Applications, stating age and experience, together with the names and addresses of two referees, should be sent to The Medical Superintendent. C 576

WESTMINSTER HOSPITAL TEACHING GROUP

Pharmacist

Applications invited for the post of Pharmacist (basic grade) for duty at the Gordon Hospital, Vauxhall Bridge Road. This is a small but busy surgical hospital. Salary according to Whitley Council Scale, £725, rising to £970, starting point according to experience, plus higher qualification allowance and London Weighting. To take up duties on 11th March or as soon thereafter as can be arranged.

Apply, giving full particulars in first instance, together with names of 2 referees, to Development Secretary, Westminster Hospital, S.W.1. C 7986

WEST PARK HOSPITAL, EPSOM, SURREY

Senior Pharmacist

required for duty in an active Psychiatric Hospital. Five-day week. Salary range £810 to £1,060 plus London Weighting. Temporary accommodation available for single person. Further information on request from Chief Pharmacist, Epsom 5234.

Apply immediately naming two referees to the Group Secretary. C 7963

PUBLIC APPOINTMENTS

NATIONAL HEALTH SERVICE JOINT PRICING COMMITTEE FOR ENGLAND

Deputy Superintendent

Applications are invited for the post of Deputy Superintendent at the Wakefield No. 1 Pricing Bureau, in Wakefield.

The Salary Scale is £1,050 x £40 (6) —£1,290 per annum.

The Deputy Superintendent will be required to assist the Superintendent, who is responsible to the Committee for the efficient operation of the Bureau and the duties entail, among other things, resolving the many problems arising from the pricing of National Health Service prescriptions. Pharmaceutical and administrative experience are desirable together with ability to supervise staff.

The selected candidate may be required to pass a medical examination.

Applications giving age, education, qualifications, experience and the names and addresses of two referees, should be sent to the Clerk of the Committee, 38 Northumberland Street, Newcastle upon Tyne, 1, by 22nd February, 1963. C 7987

EDUCATIONAL

LONDON COLLEGE OF PHARMACY AND CHEMISTRY FOR WOMEN

7 Westbourne Park Road, W.2

Established 1892

The only College in S.E. England teaching exclusively for the Assistant-in-Dispensing Examination of the Society of Apothecaries. Enrolling now for six months' full-time course for Student Dispensers under 1956 Regulations. 82 per cent. Examination successes in 1960. C 404

SITUATIONS VACANT

WHOLESALE

ANTOINE CHIRIS, LTD., require a young chemist (male) to be responsible for quality control, including analysis of essential oils and use of gas chromatography. The position offers good prospects for future advancement, excellent working conditions, with free luncheon and pension scheme. Applications should be sent to The Technical Director, Bridge House, Tadworth, Surrey. C 5001

REPRESENTATIVE required to maintain and improve valuable turnover in Yorkshire and Lancashire. Experience in selling packed pharmaceuticals to retail pharmacy essential. Salary and commission by arrangement. Car and superannuation benefits provided. Box C 5021.

INTERESTING OPPORTUNITIES with

M&B

Are you interested in entering the Pharmaceutical Industry? If so, an appointment as a medical representative in one of the undermentioned territories can afford interesting work and a rewarding future.

1. **South West London, parts of Surrey, including Kingston and Richmond.**
2. **Parts of Liverpool (including Teaching Hospitals), The Wirral, and Flintshire.**
3. **North London.**
4. **Central London.**

Applications are invited from pharmacists who would be keen to promote M & B products to the medical and allied professions. There will be ample opportunity for advancement to executive appointments.

Remuneration consists of salary, bonus and expenses allowance. A Life Assurance Scheme and a contributory Staff Pension Fund is in operation. A company car is provided.

Apply initially in writing to the **Personnel Officer, May & Baker Ltd, Dagenham Essex** quoting reference No. CD/114/62.

C 7970

SNP Medical Representatives

Smith & Nephew *Pharmaceuticals* Limited invite applications from men aged 25-40 with suitable academic, pharmaceutical or medical background, to promote a varied and highly regarded range of ethical products to doctors and pharmacists in—

- SOUTH WEST SCOTLAND based on Glasgow
- WEST RIDING OF YORKSHIRE
- NORTH & N. EAST LONDON

Sales experience is preferred, but successful candidates will receive thorough commercial and scientific training.

These appointments offer interesting and rewarding careers within an organisation giving exceptional prospects to the individual. Men who feel they need more scope to develop their own ideas and abilities will find particular satisfaction in playing a part in the growth of this forward-thinking company. Salaries are generous. All the usual company benefits are provided.

Please apply in writing with fullest details to:

Mr. H. J. Gallimore, Home Marketing Manager
Smith & Nephew *Pharmaceuticals* Limited
Bessemer Road, Welwyn Garden City, Hertfordshire

C 7988

Situations Vacant—Continued

REPRESENTATIVE for old-established northern chemists' wholesaler. Connection amongst mid-Yorkshire retail chemists essential. Preferably resident Leeds/Bradford. Older man considered. Salary, commission, expenses, car provided. Box C 5012.

STOCKTAKER required for duties in London area and Southern Counties generally. Some knowledge of drug trade, wholesale or retail, essential. Ernest J. George & Co., 329 High Holborn, London, W.C.1. C 7992

SITUATIONS WANTED

UNQUALIFIED ASSISTANT, male, Irish, available for position in retail or manufacturing. Every area given consideration. South-east preferred. Wide retail experience. Box C 5018.

AGENTS

AGENT wanted calling on surgical stores to carry additional product with high potential. Box C 7981.

A GOOD SELLING patent medicine, with no samples to carry, requires agents, buying agents preferably, in various parts of the country to back up our present advertising.

Please send full particulars of area covered, etc., to Box C 5008.

AGENCIES

SPRING PROSPECTS will be brighter with a new agency. Product has immense feminine appeal. Good-Housekeeping guarantee and advertising support. Vacant areas include North and South Wales, Midlands and Central England. Full details to Director, Box C 7976.

WANTED

CASH FOR CAMERAS!!! We pay spot cash for cameras, projectors, cine cameras. We will buy all your German or Japanese apparatus that has become obsolete or is "sticking." Quantity unlimited. Best prices. Write or telephone: The Camera Co., 320 Vauxhall Bridge Road, London, S.W.1. VICtoria 5482/3. C 627

WE WILL PURCHASE for cash a complete stock, a redundant line, including finished or partly finished goods, packing raw materials, etc. No quantity too large. Our representative will call anywhere. Write or telephone: Lawrence Edwards & Co., Ltd., 6/7 Wellington Close, Ledbury Road, London, W.11. Tel.: Park 3137-8. C 140

BUSINESS OPPORTUNITIES

"ADVANTAGES OF TRADING AS A LIMITED COMPANY" 3/-, post free, may save you thousands of pounds of personal income tax—New Ready-made Company registrations £25, for Chemists, Fancy Goods, Photography, Scientific Instruments, Investment, Stocks and Shares and 1,001 other businesses. Write, call or 'phone, Dept./55, Business Economy, 156 Strand, London, W.C.2 (Tem. 8377/8; 2294/5) and 19 Walker Street, Edinburgh, 3 (Cal. 1167/9). C 622

SMALL FIRM seeks the help of another firm to undertake the medical promotion and distribution of distinctive ethical products prescribed by a few specialists. Transfer of manufacturing would also be considered. C 5022

AGENCIES OVERSEAS

A Message to U.K. Manufacturers . . .

RHODESIAN DRUG HOUSES LIMITED

73-79 CAMERON STREET
SALISBURY · S. RHODESIA

are anxious to contact manufacturers interested in having their products actively propagated and distributed in this important and growing overseas market. Applications to General Manager will receive all possible consideration.

WE COVER THE WHOLE OF THE CENTRAL AFRICAN FEDERATION

C 7882

TRADE MARKS

TRADE MARK No. 547319 consisting of the word "MITEX" and registered in respect of "disinfectants" was assigned on 15th October by Spratt's Patent Limited, of 41-47 Bow Road, London, E.3, to Boots Pure Drug Company, of 37 Station Street, Nottingham, *WITHOUT THE GOODWILL OF THE BUSINESS IN WHICH IT WAS THEN IN USE.* C 5013

THE TRADE MARKS set out below were assigned on 11th December, 1962, by Agprolin Limited of 180 Chadderton Road, Oldham, Lancs, to Quinoderm Limited of 12 St. Peter's Square, Stockport, Cheshire. *WITHOUT THE GOODWILL OF THE BUSINESS IN WHICH THEY WERE THEN IN USE.*

Regd. No.	*Mark*	*Goods*
556621	ECZEDERM	A medicated preparation for human use in the treatment of skin infections.
779293	QUINODERM	Pharmaceutical preparations for the treatment of skin ailments.
782035	SPECTRODERM	Pharmaceutical preparations for the treatment of the skin.
782036	MITODERM	Ditto
789915	LANODERM	Ditto
821751	QUINOCORT	Pharmaceutical preparations.

C 5019

SALE BY AUCTION

B. NORMAN & SON,
2/5 Little Britain (close to G.P.O.),
London, E.C.1,

will Auction, Wednesday, February 13th, at 1.30 p.m., nearly new light oak SHOP FITTINGS, Drug Runs, Nests of Drawers, Glass Counters and wall showcases, mirrors, Cash Registers, office effects, personal weighing machine. View day prior. Catalogues available. Tel. MON. 8501/2. C 7983

FOR SALE

SURPLUS BOTTLES FOR SALE as follows: 10 grs. 8 oz. narrow mouth, screw cap amber winchesters, 40 grs. 10 oz. narrow mouth, screw cap amber winchesters, 8 grs. 80 oz. wide mouth, screw cap amber winchesters, 8 grs. 32 oz. wide mouth, screw cap amber winchesters, 12 grs. 40 oz. narrow mouth, cork mouth amber winchesters (green), 2 grs. 120 oz. narrow mouth, cork mouth amber winchesters (green), 2 grs. 80 oz. narrow mouth, screw cap amber winchesters (ammonia). Apply: The Birmingham Chemical Co., Ltd., Wiltell Works, Lichfield. C 7974

MACHINERY FOR SALE

2 NEW 100-GALLON stainless steel tanks. Gardner 56-lb. Power Mixer. Apply: C. Skerman & Sons, Ltd., 10 Parson's Green, London, S.W.6. RENown 6402. C 7931

TENDERS

NATIONAL HEALTH SERVICE

Supply of Surgical Dressings, Medicines, Drugs, etc.

The Minister of Health on behalf of the Welsh Hospital Board, invites tenders for the supply of Surgical Dressings, Medicines, Drugs, etc., as detailed below to NATIONAL HEALTH SERVICE HOSPITALS IN WALES for one year commencing 1st July, 1963.

Categories of Stores:—Surgical Dressings, Anæsthetics, Antiseptic Fluids, Dextrose, Glycerin, Injections, Medicinal Tablets, Medicines and Drugs, Liquid and Soft Paraffins, Serologicals and Spirit Methylated Industrial. *DUE DATE FOR THE RETURN OF TENDERS:*—10 a.m., 12th March, 1963.

Tender forms may be obtained on written application to the Ministry of Health, 14 Russell Square, London, W.C.1, quoting reference H.S.3 (Supply A) S2C, stating clearly the category or categories of stores for which forms are required.

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